STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 5308	Hearings at Montpelier, Vermont
Board investigation into the)	Sept. 6, 1989
adoption and implementation of)	Oct. 30 - Nov. 3, 1989
energy programs for low-income)	Nov. 20 - Nov. 22, 1989
households)	Nov. 27 - Nov. 28, 1989
	Dec. 18 - Dec. 19, 1989
	Burlington, Vermont Sept. 29, 1989

HEARING OFFICER'S INTERIM REPORT AND PROPOSAL FOR DECISION

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INTERIM REPORT AND PROPOSAL FOR DECISION

I. INTRODUCTION

This docket was opened to investigate energy programs for low-income households. It was initiated at the request of Green Mountain Power Corporation (GMP), City of Burlington Electric Department (BED), Vermont Public Power Supply Authority, Inc. (VPPSA), Central Vermont Public Service Corporation (CVPS), and the Department of Public Service (DPS).[1] In addition, in December 1987, as a part of a report on the authorization of wholesale and retail energy purchases and sales by the DPS, the Joint Committee on Public Power, Public Advocacy, and Basic Residential Rates recommended that "The Public Service Board, with the assistance of the PSD, the Department of Social Welfare, and the Tax Department, should develop a long-term program to address comprehensive energy needs of low-income persons, including those who live in rental property."

On July 31, 1989, an order was issued opening the investigation and setting a prehearing conference for September 6, 1989. A schedule was established and confirmed by Order dated September 14, 1989. The public hearing was held October 10, 1989, in Burlington, Vermont. The technical hearings were held in Montpelier, Vermont, on October 30 to November 3, 1989, November 20-22, 1989, and November 27-28, 1989. The rebuttal hearings were held on December 18-19, 1989, in Montpelier.

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1. Petitions to open this investigation were received on the following dates: Central Vermont Public Service Corporation -- letter dated January 28, 1988; Green Mountain Power Corporation -- letter dated January 29, 1988; Burlington Electric Department and Vermont Public Power Supply Authority -- letter dated January 29, 1988; and the Department of Public Service -- letter dated February 24, 1988. In addition, a Notice of Appearance was filed on behalf of Vermont Electric Cooperative, Inc. on February 29, 1988.

The scope of this docket was very broad including: identification of the extent of the need for energy assistance among low-income Vermonters, to investigate programs to deal with those needs, to clarify the Board's authority to order and/or implement specific energy assistance programs, and to propose remedial legislation that would address the total energy needs and costs faced by low-income Vermonters. The Order opening the investigation and the notice of the investigation invited non-regulated fuel suppliers to participate. However, none chose to do so.

At the prehearing conference several parties expressed the need to adopt an expedited schedule to allow the completion of this docket by the January 1990 Legislative session. The hearing officers agreed to this schedule by deferring implementation issues until a second phase to be scheduled during the Spring of 1990. Because of the expedited schedule, the record is not complete in some areas which have been identified in the Discussion Section.

Our Findings of Fact in this proceeding are set out in Section II, below. Our discussion, recommendations, and conclusions of law are set out in Section III. As noted in Section III, our conclusions are as follows:

(1) The Low-Income Home Energy Assistance Program (LIHEAP) program, which is administered by the Department of Social Welfare, appears to have sufficient funding to cover, on average, 84% of recipients' heating costs. However, the parties in this proceeding and other non-regulated fuel vendors should work together to ensure that the benefits are distributed to provide the highest benefits to households with the lowest incomes and highest energy costs.

(2) The loss of the New York Power Authority (NYPA) power and the higher cost of replacement power will have a significant impact on the state and especially on low-income

households; therefore, a program should be designed to provide assistance for the non-heating portion of energy usage of low-income households.

(3) The Weatherization Assistance Program (WAP) will not have sufficient funding for continued operation at its current level beyond April 1990; parties to this proceeding should work together to ensure that this funding is continued.

(4) The design of the conservation and demand-side management programs of electric and gas utilities is progressing. The potential for reducing societal costs by specifically targeting these programs for low-income households should be a part of this design.

(5) Recommendations for targeted deposit and disconnection protections will be explored in the next phase of this docket.

(6) Parties in this docket should continue to work together with unregulated fuel suppliers to guarantee that these five forms of energy assistance are more closely integrated to provide for the overall energy needs of low-income households. Each of these points is addressed in further detail in Section III.

Based on the evidence in the record and the testimony given at the hearings, we hereby report the following findings and conclusions of law to the Board in accordance with 30 V.S.A. Section 8. On the record to date, all other findings proposed by the parties are rejected unless accepted below. This is without prejudice to the right of the parties to present additional evidence and argument in Phase II of this proceeding.

II. FINDINGS

A. Current Situation - Energy Assistance Programs for Low-Income Households

1. A variety of programs to help low-income households meet their energy needs are being provided through the efforts of

the State of Vermont Department of Social Welfare (DSW), the State of Vermont Office of Economic Opportunity (SOEO), the Community Action Programs (CAPs) and Vermont electric and natural gas utilities and unregulated fuel dealers. This finding is based on findings in Sections A.1 through A.4, below.

A.1. Department of Social Welfare's Low-Income Home Energy Assistance Program (LIHEAP)

2. The DSW provides direct assistance to low-income households through LIHEAP. The purpose of this program is to help low-income households meet the high cost of heating their homes. DSW Exh. 1 at 75.

3. LIHEAP provides two types of benefits: supplemental fuel assistance and emergency fuel assistance. DSW Exh. 1 at 75.

4. Eligibility for supplemental fuel assistance is based on income. The monthly incomes of elderly and disabled persons, and persons with high shelter costs are adjusted when eligibility is determined. For each elderly and disabled person in a household, the monthly income for purposes of calculating the LIHEAP benefit of that household is reduced by $75. For each household with shelter costs above $150 per month, the monthly income is adjusted by an amount equal to the amount above $150 that the household pays for housing in a given month. Patt pf. at 9-10.

5. Households receiving Aid for Needy Families with Children (ANFC) and food stamps are automatically eligible for supplemental fuel assistance. Tr. 10/30/89 at 68 (Patt); Patt pf. at 7.

6. Households living in subsidized housing are not eligible for supplemental fuel assistance but they are eligible for emergency fuel assistance. Tr. 10/30/89 at 68 (Patt).

7. Under the supplemental fuel assistance program, once an applicant is determined to be eligible, a base benefit amount is calculated based on net income as adjusted for elderly

and disabled persons and households with high shelter costs. The base benefit is then adjusted upward or downward by multiplying the base benefit by a multiplier for housing type and fuel type. Patt pf. at 9.

8. The following adjustment factors for households will be used to determine the level of benefits for the 1989-90 heating season:

Single family units	125%
Mobile homes	100%
Multi-family units	100%
Renters	30%
Roomers	20%
All electric	130%
Propane	100%
Oil	100%
Natural gas	75%
All wood	75%
Electric with other heat	130%
Kerosene	90%
Coal	75%
Wood with other heat	100%

DSW Exh. 6D at 1.

9. The supplemental fuel assistance program provides a benefit to eligible households based on income of household and type of fuel. The benefit, except for clients heating with wood, is sent to recipients monthly through a check which is written to both the household and the fuel vendor. For clients heating with all wood, the check to the client is written for the entire heating season. Patt pf. at 7; DSW Exh. 6D.

10. The purpose of LIHEAP is to help people pay for their heating bills, not their total energy bills. Patt pf. at 14.

11. Based on information as of May 1989, on average, households receive 84% of their heating needs from LIHEAP benefits. Tr. 10/30/89 at 122 (Patt); and tr. 10/31/89 at 182 (Jenckes).

12. The average LIHEAP supplemental fuel assistance benefit during the 1988-89 heating season was $484. DSW Exh. 3 at 3.

13. During the 1988-89 heating season, 6% of LIHEAP participants heated with all electric, 1% with electricity and another heating source, 6% with natural gas and the remainder with unregulated sources of heat. This does not include roomers (4%) and renters (14%) for whom heat is included in their monthly rent. DSW Exh. 3 at 4.

14. While the average LIHEAP benefit is currently adequate in helping recipients pay heating bills, there is considerable disparity with some recipients receiving too much and some too little. Tr. 11/3/89 at 36 (Colton); Patt pf. at 11.

15. The difference in the rates charged by different electric utilities may contribute to the misallocation of LIHEAP funds. Tr. 11/2/89 at 18 (Collins).

16. A May 1988 study prepared by the Vermont Energy Investment Corporation (VEIC) for the DSW found that 49% of LIHEAP recipients had past due amounts averaging $176 and 24% of LIHEAP recipients had credit balances averaging $263 at the end of the 1988 heating season. If this sample is representative of all recipients of LIHEAP funds, the credit balances would be $768,000 and the past due amounts would be approximately $1.38 million. Tr. 10/30/89 at 74 (Patt); Prine pf. at 14.

17. The credit balances being held by fuel dealers and utilities on behalf of low-income customers have been accumulating over several years. Tr. 10/30/89 at 147 (Patt).

18. If a client has a credit balance with their utility or fuel dealer at the end of the heating season, they can draw down from that credit balance over the course of the summer. Tr. 11/1/89 at 67 (Patt).

19. On average, supplemental fuel assistance has been paying over 80% of the average recipient's heating bills and for some electric and natural gas heaters, has been paying all or part of the non-heating portion of their bill. Patt pf. at 16.

20. The DSW attempts to structure its programs so that they operate in conjunction with each other, providing an income maintenance package for the family or individual rather than attempting to match each assistance program to the cost to the household for that specific need alone. Patt pf. at 6.

21. The DSW has retargeted benefits for the 1989-90 heating season by changing the adjustment factors and eliminating the adjustment for family size in an attempt to reduce the size of credit balances and past due amounts. Patt pf. at 10.

22. A disproportionate percentage of electrically heated dwelling units are located in Chittenden County. The Burlington district office of the DSW has 14.1% of the State's households receiving supplemental fuel assistance, yet it has 37.8% of all households receiving supplemental fuel assistance that heat with electricity. Patt pf. at 13; DSW Exh. 5 at 4.

23. Although the City of Burlington represents 21% of the emergency caseload for all fuels, it accounts for half (49.7%) of the State's all-electric caseload. K. Smith pf. at 2.

24. The percentage of BED customers with incomes below $5,000 who are using electric heat has increased slightly, while the percentage has declined among all other income categories. Tr. 11/3/89 at 27-8 (K. Smith).

25. When low-income households cannot afford to pay for a delivery of bulk, non-regulated fuel, they may buy a cheap portable electric space heater or utilize their cooking stove for heating. This is because they pay for electricity after they use it rather than having to pay in advance. Tr. 10/31/89 at 104 (Kinner); tr. 10/31/89 at 122-3 (Sachs); Prine pf. at 13.

26. Although LIHEAP constitutes a small percentage of DSW's overall budget, it has one of the largest number of recipients of all of DSW's programs. Tr. 10/30/89 at (Patt).

27. The caseload for supplemental LIHEAP benefits has ranged from an estimated 16,000 in FY89 to 22,120 in FY83. DSW Exh. 2.

28. If Vermont were to use the allowed participation at the maximum federal guidelines for participation in LIHEAP and not apply any resources test, approximately 42,000 low-income Vermont households would be eligible for LIHEAP. Tr. 11/28/89 at 68-71 (Colton); Colton pf. at 11.

29. The federal guideline for maximum income for eligibility for LIHEAP is 150% of the poverty level. Tr. 11/28/89 at 68 (Colton).

30. The income eligibility criteria for participation in the supplemental fuel assistance portion of LIHEAP in the State of Vermont are 150% of the federally-established poverty guideline for households with elderly and disabled persons, and 125% of the poverty guideline for other households. Tr. 11/1/89 at 275 (Prine); tr. 11/28/89 at 68 (Colton).

31. The LIHEAP program has had a different level of funding each year. The federal LIHEAP allocation has been as follows:

Fiscal Year	Federal Allocation
1982	$11,134,008
1983	11,733,003
1984	12,327,727
1985	12,327,727
1986	11,732,961
1987	10,838,202
1988	9,107,881
1989	8,223,822 (estimate)

DSW Exh. 2.

32. The maximum amount of federal funding for LIHEAP was received in FY84 and FY85 when the state received $12,327,727. DSW Exh. 2.

33. The minimum federal allocation for LIHEAP was received in FY89 when an estimated $8 million dollars was received. DSW Exh. 2.

34. The spending limit of DSW for LIHEAP for FY89 was $9.3 million. This amount represents the maximum amount that DSW can spend for LIHEAP if they receive it from the federal government. Patt pf. at 5.

35. Emergency fuel assistance, as a part of LIHEAP, is provided to households that have a fuel emergency. This is evidenced by a less than three days of fuel in the tank or owing two month's bills and having received a shut-off notice from a natural gas or electric utility, and unpredictable or extenuating circumstances, as indicated by records of how they have spent their income in the last thirty days. Tr. 11/1/89 at 277 (Prine); tr. 10/30/89 at 69-70 (Patt); Prine pf. at 17.

36. Emergency fuel assistance only pays the amount of the recipient's current bill. If the recipient has arrears, they must find another way to pay for the arrears. Tr. 11/1/89 at 277 (Prine).

37. The eligibility criteria for participation in LIHEAP emergency fuel assistance is 150% of poverty. Tr. 11/1/89 at 277.

38. The caseload for LIHEAP emergency fuel assistance has ranged from an estimated 1,200 in FY89 to 2,988 in FY82. DSW Exh. 2.

39. In the 1988-89 fuel season, 5.3% of the recipients of LIHEAP supplemental fuel assistance also received LIHEAP emergency fuel assistance. This calculation is based on the following information: 15,066 supplemental fuel assistance clients and 850 clients receiving both supplemental and emergency fuel assistance = 15,916 total supplemental fuel recipients (850/15916 = 5.3%). Tr. 11/1/89 at 64 (Patt); DSW Exh. 3 at 3.

40. Based on findings 13, 41, and 42, a disproportionately high percentage of households that heat with all electric or natural gas receive emergency fuel assistance

compared to all households receiving supplemental fuel assistance.

41. The percentage of households receiving LIHEAP emergency fuel assistance who heat with all electric has decreased from 47% of recipients in the 1986-87 heating season, to 41% in the 1987-88 heating season, and to 37% for the 1988-89 heating season. DSW Exh. 3 at 4, 11 and 18.

42. The percentage of households receiving emergency fuel assistance who heat with natural gas has increased from 3% in the 1986-87 heating season, to 7% in the 1987-88 heating season, and to 11% in the 1988-89 heating season. DSW Exh. 3 at 4, 11 and 18.

43. A large portion of households that receive LIHEAP emergency fuel assistance and no LIHEAP supplemental fuel assistance benefits may be living in subsidized housing and are, therefore not eligible for LIHEAP supplemental fuel assistance. Tr. 11/1/89 at 62 (Patt).

44. The Public Service Board has no jurisdiction over the design of LIHEAP and its delivery system, unregulated fuel vendors and the distribution of LIHEAP funds. However, because of the impact of LIHEAP on regulated fuel vendors and their customers, the Board should consider the design and operation of LIHEAP in this docket. Colton pf. at 36.

A.2. Weatherization Assistance Program (WAP)

45. The State Office of Economic Opportunity (SOEO) administers and coordinates the funding for the WAP. Greene and Struck pf. at 2.

46. The SOEO contracts for the delivery of weatherization to four Community Action Agencies and the Northeast Employment Training Organization (NETO). Greene and Struck pf. at 2.

47. The SOEO receives several sources of funding for the WAP. Greene and Struck pf. at 2; SOEO Exh. 1.

48. The WAP has received $29,139,260 since its inception in 1980. SOEO Exh. 1.

49. The major source of funding for the WAP is the Department of Energy (DOE). The State has received $14,252,338 from the DOE since FY80. SOEO Exh. 1.

50. The LIHEAP program has transferred $8,470,122 to the WAP since FY80. SOEO Exh. 1.

51. The WAP has received funds from the oil overcharge funds for the past few years. Tr. 11/22/89 at 59 (Greene and Struck).

52. The maximum funding for the WAP has been $3,513,205 in FY85. SOEO Exh. 1.

53. The WAP has averaged $2.9 million per year in funding over the last ten years. Greene and Struck pf. at 2; SOEO Exh. 1

54. Since its inception in 1980 through July 31, 1989, 20,099 dwelling units have been weatherized under the WAP. Greene and Struck pf. at 2; SOEO Exh. 1.

55. Based on 1980 census data, an estimated 33,000 dwelling units are eligible for the WAP. The number of eligible households is likely to be greater than 33,000. Tr. 11/22/89 at 26 and 97 (Greene and Struck).

56. Under the WAP, funds are provided to install insulation, storm windows, caulking, weatherstripping and other improvements to reduce heat loss. Greene and Struck pf. at 2.

57. The types of activities completed under the WAP are limited by the DOE to an average of $640 for materials per unit and $960 of support and labor cost per unit for an average of $1,600 per unit. Support costs include the cost of installing materials, upkeep and maintenance of trucks and equipment and other costs of administering the WAP. Tr. 11/22/89 at 27 (Struck and Greene); Greene and Struck pf. at 3.

58. Households at or below 150% of the federally-established poverty guideline are eligible for the WAP. Tr. 11/22/89 at 24 (Greene and Struck).

59. Households with elderly and/or handicapped persons are given priority for weatherization over other households at comparable levels of income. Tr. 11/22/89 at 24 (Greene and Struck).

60. The WAP serves homeowners and renters. A majority (60%) of the weatherization has been done on rental units. Tr. 11/22/89 at 24, 71 (Greene and Struck).

61. It can be more difficult to weatherize rental units. This finding is based on findings 62 and 63, below.

62. There must be cooperation with landlords before a unit can be weatherized. This often takes the form of an agreement to stabilize the rents for at least one year. Tr. 11/22/89 at 54 (Greene and Struck).

63. Two-thirds of all units in a multiple-family unit and one unit out of two in a two-family unit must qualify for the WAP before a building can be weatherized. Tr. 11/22/89 at 25, 56 (Greene and Struck).

64. The DOE does not allow for replacement of heating systems even if there are health and safety concerns, such as cracked heat exchangers, problems with the flue ventilation, faulty emergency or limiter switches. Tr. 11/22/89 at 31-32 (Greene and Struck).

65. The federal guidelines for the WAP do not allow replacement of hot water heaters and lighting fixtures. Tr. 11/22/89 at 29 (Greene and Struck).

66. Expenditures under the WAP are limited to an average of $1,600 per unit. This means that many housing repairs (such as foundation, chimney and roof repair) that would improve energy efficiency cannot be completed when a unit is weatherized. Tr. 11/22/89 at 34 (Greene and Struck).

67. The cost of major heating system repairs range from $2,000 to $2,500. Tr. 11/28/89 at 28 (Greene and Struck).

68. On average, it can be cost-effective to spend up to $2,000 in weatherization of low-income households. This does not include furnace repair. Tr. 10/31/89 at 147 (Sachs).

69. If funding is reduced to $1.3 million for the WAP, the number of heating systems which can be replaced or repaired will be reduced from approximately 275 during last year to about 25 in the next program year. Tr. 11/22/89 at 53 (Greene and Struck).

70. The DOE prohibits the State's WAP from going back to apply new weatherization measures to any household which has been weatherized since October 1, 1979. Tr. 11/22/89 at 40 (Greene and Struck).

71. The technology and knowledge about weatherization has improved significantly since the early 1980s. Tr. 11/22/89 at 41 (Greene and Struck).

72. Thirty-three percent of the units that have been weatherized are mobile homes. Tr. 11/22/89 at 47 (Greene and Struck).

73. Once major air infiltration (holes and dryer vents) has been fixed, the heating system is the second most critical element in the weatherization of households. Replacement, cleaning and tuning of heating systems have provided substantial energy cost savings to households receiving weatherization under the enhanced weatherization program using oil overcharge money. Tr. 11/22/89 at 52 (Green and Struck).

74. A 1985 Weatherization Effectiveness Study by Gratiot Engineering showed an average yearly fuel savings of 19.5% for households weatherized the previous winter. This study analyzed savings using the following fuels': wood, no. 2 oil, kerosene, and L.P. gas. These rate of savings could be higher today given the improvements in the technology for determining

where insulation is needed. Tr. 11/21/89 at 11 (Prine); tr. 11/2/89 at 101 (Struck); Greene and Struck pf. at 3.

75. It is not unlikely that 40% of a household's total energy costs could be saved through cost effective, simple state-of-the-art energy efficiency measures such as insulation, air leakage reduction and improved heating systems. For households with electric space heaters, costs can be reduced by up to 70% by converting to another fuel. Tr. 10/31/89 at 114-115 (Sachs).

76. There is an enormous potential for energy efficiency to reduce energy costs in low-income households. Making those energy efficiency improvements to homes permanently reduces the need for assistance. Tr. 10/31/89 at 114 (Sachs).

77. Administrative costs in the WAP are limited to 10% of the grant dollars received from the DOE. Five percent is used by the SOEO and the other five percent is distributed among the five agencies that provide the weatherization services. Tr. 11/22/89 at 116.

78. The DPS is preparing a program evaluation of the WAP which is scheduled for completion by the end of January 1990. Tr. 11/22/89 at 104-5 (Greene and Struck).

A.3. Programs Funded by Contributions from Utilities and Their Customers.

79. The ShareHeat program is an emergency fuel assistance program which is administered by the Community Action Programs (CAPs) throughout the State. It is funded by voluntary contributions from CVPS ratepayers and a match of up to $50,000 from CVPS stockholders. Tr. 11/20/89 at 100 (Prine).

80. The grant from ShareHeat is limited to $200 per winter per household. Tr. 11/20/89 at 101 (Prine).

81. The ShareHeat program had a balance of between $70,000 - $90,000 on November 20, 1989. Tr. 11/20/89 at 101 (Prine).

82. The ShareHeat funds can't be used for utility deposits or for customers who do not receive their electricity from CVPS. Tr. 11/20/89 at 103 (Prine).

83. The CAPs currently receive no money for the administration of the ShareHeat program. Tr. 11/20/89 at 104 (Prine).

84. The WARMTH program is an emergency fuel assistance program which is funded through solicitations to customers of eleven utilities, including BED, GMP, Hyde Park Electric Department (HPED), Citizens Utilities Company (CU), Washington Electric Cooperative (WEC), Vermont Gas Systems (VGS), and two fuel oil dealers. Tr. 11/20/89 at 103 (Prine); Larsen pf. at 4; Williams pf. at 2; Alleman pf. supp. at 3; W. Smith pf. at 3.

85. BED, VGS and GMP donate administrative money to the CAPs for the WARMTH program. Tr. 11/20/89 at 103 (Prine); Larsen pf. at 4.

86. The WARMTH fund may be used to pay for utility deposits or emergency fuel needs not covered by emergency fuel assistance. WARMTH funds may be paid to any fuel supplier. Tr. 11/20/89 at 110 (Prine).

87. The maximum grant from WARMTH is $75 per heating emergency and the maximum grant per heating season is $225. Tr. 11/1/89 at 28 (Prine).

88. During the 1988-89 heating season, $50,821 was raised for the WARMTH program. Of these funds, $49,456 were distributed to 798 households for an average grant of $61.97 per household. Prine pf. at 12.

89. The WARMTH and ShareHeat programs change the role of the CAPs from being advocates for low-income households to being money providers. This change in roles may change the expectations of their clients about the services the CAPs provide. Tr. 11/1/89 at 281 (Prine).

A.4. Utility-Sponsored Energy Efficiency Programs Targeted at Low-Income Households

90. CVPS has made a $50,000 interest free loan to Rutland West Neighborhood Housing (Rutland West) for its energy services to low and low-moderate income households in that neighborhood. CVPS also provides refrigerator rebates, energy efficiency lighting and technical assistance in some of the audit work of Rutland West. The services of Rutland West are provided to its clients at no or low-cost. Tr. 11/28/89 at 200-204 (Lind).

91. CVPS has a Seal-Up program which is their residential energy audit program. Under this program, they offer a loan program at four or eight percent buy-down. Under the buy-down provisions, CVPS pays the difference in interest between the market interest rate and four or eight percent. Tr. 11/28/89 at 202-205 (Lind).

92. Since July 1, 1985, about twenty low-interest loans have been made for amounts between $3,000 and $6,000 under the Seal-Up program. Tr. 11/28/89 at 206 (Lind).

93. CVPS also offers two other conservation programs which are not specifically targeted at low-income households: a water heater conservation program and a Class B Audit. Tr. 11/28/89 at 206 (Lind).

94. In the collaborative design process, CVPS organized a discussion/focus group with a group of low-income advocates representing ten agencies, including Roger Colton of the National Consumer Law Center. CVPS is using the information gathered from these focus groups to target their residential, DSM programs to low-income households. Lind pf. supp. at 2-3.

95. CVPS is exploring the use of piggybacking onto other services of State and low-income advocates providing direct services to low-income households for delivery of their DSM measures. Tr. 11/28/89 at 210 (Lind).

96. CVPS has not yet finalized their marketing or targeting strategies for their DSM programs. Tr. 11/28/89 at 209 (Lind).

97. GMP has had a Residential PowerSavers program in place since 1989. It provides free installation of water-heater-tank and pipe insulation, low-flow shower heads, energy-saving faucet aerators and high efficiency compact fluorescent lighting for the company's water heating customers. Breen pf. at 3.

98. The PowerSavers Program has not been specifically targeted to low-income households. However, GMP is currently working with the CAPs to get referrals of low-income households. Tr. 11/2/89 at 303 (Breen).

99. GMP is currently conducting marketing research on a residential lighting program. They are considering waiving any cost of this program for low-income households. Breen pf. at 4.

100. Since 1985, GMP has had a Home EnergySavers program through which individuals could obtain low-interest loans for a variety of weatherization and conservation efforts. Tr. 11/2/89 at 307 (Breen).

101. GMP has offered a Ripple Program for water heating customers who receive a $25.00 sign-up credit and a $2.50 discount each month in exchange for allowing temporary interruptions of their water heating during peak load periods. This program is not specifically targeted to low-income households. Breen pf. at 5.

102. GMP is exploring, with a prospective buyer, a fuel conversion of the Highgate Apartments in Barre. These apartments are electrically heated and would be converted, using funds from GMP, to another source of energy for the 1990-91 heating season. Tr. 11/2/89 at 303-304 (Breen); Breen pf at 7.

103. GMP is exploring the conversion of households from electric heat to other sources as a part of their planning for DSM programs. Breen pf at 6.

104. GMP has not specifically involved low-income agencies in the development of specific programs for targeting its weatherization and efficiency measures to low-income customers. Tr. 11/2/89 at 309-10 (Breen).

105. BED is making funding available to Northgate, a 336-unit housing complex for low-income households, for a conversion from electric heat to natural gas heat. Tr. 11/3/89 at 28-30 (K. Smith); K. Smith pf. supp. at 2.

106. BED has received a $125,000 DOE grant which will eliminate the use of residential on-peak electric heat. Tr. 11/22/89 at 222-23 (K. Smith); K. Smith pf. supp. at 2.

107. BED is developing an electric space heating conversion program under which the building owner will pay for 50% of the cost of fuel switching at the time it is implemented or repay 100% over time through a regular monthly charge. Tr. 11/22/89 at 216-17 (K. Smith); BED Exh. 2 at 2.

108. BED has introduced a SMARTLIGHT program for all its customers which gives a household a light bulb, a flow restrictor and outlet caps. The bulbs are leased at 20 cents per month. Tr. 11/22/89 at 214 (K. Smith).

109. BED has prepared a grant proposal to develop and implement a tenant education program at Northgate Apartments to help tenants be more energy efficient. Tr. 11/22/89 at 218 (K. Smith); K. Smith pf. supp. at 3.

110. BED is in the middle of a long-term planning process, which is expected to be completed in March 1990, to identify a new set of demand-side measures. The needs of low-income households will be considered in this process. Tr. 11/22/89 at 218 (K. Smith).

111. VGS is in the process of gathering information on demand-side management programs that can be implemented. VGS has not made any decisions about targeting programs to low-income households or to any other customer group. Tr. 10/31/89 at 85 (Larsen); Larsen pf. supp. at 3.

112. Vermont Electric Cooperative (VEC) is involved in a collaborative design process for the development of demand-side management programs. The results of this process are expected early in 1990. Kinner pf. supp. at 2.

113. VEC does not currently provide any financial assistance to reduce the cost of demand-side management measures for low-income households. VEC is currently considering the use of financial assistance for low-income households as a part of its preliminary thinking about entry into a collaborative design process. Tr. 11/22/89 at 12 (Kinner).

114. CU has had discussions with CVPS about using them as a consultant in the development of demand-side management programs. Alleman pf. supp. at 3.

115. CU does not plan to specifically target demand-side management programs to low-income households. Alleman pf. supp. at 4.

116. CU has not yet determined specific DSM programs, although it expects its next conservation program to be in place in January 1990. Alleman pf. supp. at 4.

117. Phase V of Docket 5270 deals with demand-side management for the small utilities. It is ongoing. Williams pf. supp. at 1.

118. HPED has an agreement with CVPS to purchase DSM programs as they are developed. Williams pf. supp. at 1.

A.5. Extent of the Need for Energy Assistance

119. According to the 1988 VEIC Fuel Assistance Survey, the annual heating cost of low-income Vermonters is $722 and the total energy cost is $1,368. CVOEO Exh. 1 at 1.

120. The average cost of non-heating energy for low-income households is $646. Id.

121. The cost of the initial block of electricity has increased as the State has lost the majority of the low-cost power it received from the New York Power Authority (NYPA). NYPA power can be purchased at one cent per kwh and power can be purchased from other sources for about four cents per kwh. Thus, the cost of the lost of NYPA to low-income customers of electric companies is between $1.5 million and $3.8 million per year.

Assuming that all low-income households use the allotted 200 kwh:

.03 x 200 kwh x 12 months x 16,000 LIHEAP households = $1.5 million.

Assuming that 42,000 households are low-income:

.03 x 200 kwh x 12 months x 42,000 households below 150% of poverty = $3.8 million.

Tr. 10/31/89 at 18; Spinner and Deehan pf. at 16; Spinner and Deehan pf. reb. at 3.

122. Utilities expect that power costs, overall, will increase in the near future as low-cost power sources are retired and replaced with more costly power sources. Tr. 11/2/89 at 213 (Deehan and Spinner); Deehan and Spinner pf. reb. at 3; Alleman pf at 4.

123. On average, heating costs represent just over half of the total energy use (52.8%) of low-income households. The other 47.2% represents the average energy usage for non-heating uses. Tr. 10/31/89 at 113 (Sachs); Prine pf. at 13, Finding 19.

124. The heating costs for low-income households varies widely according to type of fuel and housing. The following charts show the average heating costs by fuel type, housing type, and housing and fuel type:

Fuel Type	Average Heating Cost 1988
Electric plus other source	$ 957
All electric	935
Kerosene	671
Natural gas	535
Oil	753
LPG	737
Wood plus other source	708
Wood only	532

Housing Type	Average Heating Cost 1988
Multi-family	$ 642
Single family	798
Mobile Home	645

Average Heating Cost by Fuel Type and Housing Type

	Multi-family	Single family	Mobile Home
Electric plus other	$ 572	$1,150	n/a
All electric	805	1,217	n/a
Kerosene	627	843	$ 632
Natural gas	506	559	n/a
Oil	644	829	562
LPG	588	894	678
Wood plus other	n/a	685	746
Wood	n/a	559	458

n/a - not available

DSW Exh. 6C at 11.

125. The income distribution of the LIHEAP supplemental fuel assistance recipients for the 1988-89 heating season was as follows:

Income	Cases	Percent
$ .01 - $ 1,999.99	1,345	8.5
2,000.00 - 3,999.99	5,010	31.5
4,000.00 - 5,999.99	4,860	30.5
6,000.00 - 7,999.99	2,335	14.7
8,000.00 - 9,999.99	949	6.0
10,000.00 - 11,999.99	394	2.5
12,000.00 - 14,999.99	214	1.3
15,000.00 or more	53	.3
none	756	4.7

	15,916	100.3*

*does not equal 100.0% due to rounding.

DSW Exh. 3 at 5.

126. The average annual income of LIHEAP supplemental fuel assistance recipients in Vermont was about $5,724 in 1988 excluding the LIHEAP benefit and other income disregards and deductions. The actual income of recipients could be higher or lower than this amount. Colton pf. at 12.

127. There is currently no assistance program to specifically address the non-heating needs of low-income households. Tr. 10/30/89 at 80 (Patt).

128. Federal funding of LIHEAP fuel assistance has been declining since 1985 and may continue to decline. Patt pf. at 8; DSW Exh. 2 at 1.

129. The DSW expects that there will be a shortfall in federal funding for LIHEAP during the 1990-91 heating season. Patt pf. at 9.

130. The funding for the next program year beginning April 1, 1990 for the WAP is expected to be $1.3 million with $1.1 million from the DOE and $200,000 from State oil overcharge funds. Tr. 11/22/89 at 43, 87 (Greene and Struck).

131. If the funding for WAP is reduced from its current level of $2,649,812.00 to $1.3 million, the State would lose its investment in the training and skills of the auditors who are some of the best trained auditors in New England. Tr. 11/22/89 at 45-46 (Greene and Struck).

132. There is a need to continue to weatherize low-income households. Many households would reduce their heating energy costs if their housing unit was weatherized. Findings 55, 66, 67, 68, 69, and 74.

133. Thirty six percent of the households who came to Chittenden Community Action for funds from WARMTH were already receiving supplemental fuel assistance. Seventeen percent have

received emergency fuel assistance, but the emergency fuel assistance was inadequate to resolve the emergency. Prine pf. at 18.

134. According to a 1980 Census for Vermont, 51% of the households in the state used electricity for water heating and 6% were provided by utility gas. Non-regulated fuels provided the remaining 43% of the energy used for water heating. Larsen pf. reb. at 18.

135. According to the 1980 Census for Vermont, 67% of Vermont households used electricity for cooking, 5% used utility-supplied gas and the remaining 28% used unregulated fuels. Larsen pf. reb. at 18.

136. In Vermont an ANFC household of three receiving the maximum monthly benefit in 1988 of $603 would have spent 18.3% of its annual income on its home energy bills. Assuming that the household receives an average LIHEAP supplemental fuel benefit of $484 for the heating season, that household would have a weekly income left, after paying an average Vermont energy bill, of about $130 for all other living expenses. These figures are not adjusted for other benefits received by LIHEAP recipients in other programs. Colton pf. at 10; Finding 12.

137. An elderly couple receiving the maximum Supplemental Security Income (SSI) grant in January 1988 of $638 would have spent 17.3 percent of their income on home energy bills. Assuming that the households received an average LIHEAP supplemental fuel assistance benefit of $484, that household would have had a weekly income left, after paying an average Vermont winter energy bill, of about $130 for all other living expenses. These figures are not adjusted for other benefits received by LIHEAP recipients in other programs. Colton pf. at 10; Finding 12.

138. An elderly individual receiving the maximum SSI benefit in January 1988 of $412 would have spent 26.8 percent of

him/her income on home energy bills. Assuming that the household received an average LIHEAP supplemental fuel assistance benefit of $484, that household would have had $80 per week left for all other living expenses after paying an average Vermont winter energy bill. These figures are not adjusted for other benefits received by LIHEAP recipients in other programs. Colton pf. at 10; Finding 12.

139. A household receiving the average unemployment in Vermont in 1988 of $574 per month would have spent 19.3 percent of its income on its annual home energy bill. It would have $117 left per week to spend on all other living expenses after paying an average Vermont winter energy bill assuming it received an average LIHEAP fuel assistance benefit of $484. These figures are not adjusted for other benefits received by LIHEAP recipients in other programs. Colton pf. at 10; Finding 12.

140. The average monthly Social Security benefit in Vermont for a widow/widower was $465 per month in 1988. Assuming that household has no other source of income, that person would have spend 23.8 percent of her income on her annual home energy bill. Assuming that person received an average LIHEAP supplemental fuel assistance benefit of $484, that person would have had $87 left per week for all other living expenses after paying an average Vermont winter energy bill. These figures are not adjusted for other benefits received by LIHEAP recipients in other programs. Colton pf. at 11; Finding 12.

141. Although energy bills can be a significant burden on low-income households, it does not mean that they are the primary source of stress on the budgets of low-income households. Medical care and housing costs are two major expenses exerting pressure on the budgets of low-income households. Tr. 10/30/89 at 192 (Patt); tr. 11/1/89 at 52 (Patt), Deehan and Spinner pf. reb. at 3.

142. For many low-income households, the non-payment of energy bills is a result of insufficient income to meet household need. These households must decide between competing survival needs. Tr. 11/1/89 at 142-3 (Prine).

143. VEIC conducted a fuel assistance survey of the recipients of LIHEAP funds for the DSW. Some of the results of the survey have been analyzed and used to change the DSW's allocation of LIHEAP funds. The rest of the survey data was expected to be analyzed by the end of 1989. Tr. 10/30/89 at 183 (Patt); DSW Exh. 4.

144. The rate of uncollectibles for all customer classes for all Vermont electric utilities was .24% in 1987 for a total outstanding of $897,000. This compares to a national average rate of about .5%. Tr. 11/27/89 at 56, 162 (Colton).

145. Based on findings 146 through 152, the number of disconnections of a utility is not a good indication of the level of payment trouble of low-income households.

146. Although they do not maintain records on low-income customers, Lyndonville Electric Department estimates that 10% of their customers who receive disconnection notices are low-income. Mills pf. at 2, 4.

147. During a one-month period from July-August 1989, only 12.4% of the residential customers receiving disconnect notices from VGS received LIHEAP fuel assistance payments from the DSW. By the disconnection stage, 24.5% of households contacted received DSW assistance. Larsen pf. reb. at 4-5.

148. Of the 234 residential customers disconnected between January 1, 1989 and October 31, 1989, 27.5% had paid a bill with a check from the DSW. Larsen pf. reb. at 5.

149. Between October 1988 and September 1989, GMP disconnected 11% of their customers who were known to be recipients of fuel assistance. The identified low-income households represent 4.4% of the company's total residential

disconnections. These percentages may be higher because some low-income customers do not receive LIHEAP for electric service because they heat with a fuel other than electricity. Tr. 11/2/89 at 256-7; Tower pf. at 3.

150. Two out of ten disconnections, or 20%, made by Vermont Marble Company (VMC) were for customers who are low-income customers. Ferris pf. at 5.

151. Although they do not identify customers in their records as being low-income, CU estimates that no more than 10% of their disconnections for non-payment are for low-income customers. Alleman pf. reb. at 2-3.

152. In 1988, 21 of 24 Vermont electric utilities, (excluding BED, Swanton Electric Department, and Johnson Electric Department (JED)) and VGS sent 339,441 disconnection notices and disconnected 4,668 households. DPS Exh. 10.

153. CVPS estimated that 11.9% of their clerks' time was spent on disconnection activities associated with low-income households, while 31.5% of their time was spent disconnecting customers who are not low-income. Office supervisors spent 9.3% of their time on activities associated with disconnection of low-income households and 18% of their time on customers who are not low-income. Meter readers spent 6.6% of their time on low-income customers compared to 14.4% of their time on customers who were not low-income. CVPS Exh. 16; tr. 12/18/89 at 142 (Deehan and Spinner).

154. A majority of low-income households are tenants. Of the households seeking fuel or utility assistance from CCA in 1989, 8% were homeowners and 92% were renters. Prine pf. at 9.

155. There are homes, especially mobile homes, which are heated with non-regulated fuel sources that would benefit from utility-sponsored weatherization because the water pipes are heated with heating tape and may impose significant costs to

electric utilities even if the primary source of heat is not electric. Tr. 11/21/89 at 63 (Prine).

A.6. Barriers to Participation in Weatherization and Conservation Programs

156. The high percentage of low-income households who are renters presents significant barriers to participation in weatherization and conservation programs. Tr. 10/30/89 at 126 (Patt).

157. Low-income households who are renters may choose not to participate in weatherization and conservation programs because they fear that their rents will increase as a result of the improvements to their dwelling unit. Tr. 11/3/89 at 74-6 (Colton).

158. People who are renters tend to move more frequently, such as once a year or every two years, making it less likely that they will implement conservation and weatherization because their investment will not be paid back until after they move. Tr. 11/3/89 at 74-6 (Colton).

159. Landlords may choose not to participate in weatherization and conservation programs because they may fear that an energy auditor will detect code violations. Tr. 11/1/89 at 291 (Sachs).

160. Landlords usually choose the lighting, refrigerator, water heater and other appliances to be used in their rental units. These uses create and substantially define most of a rental units' non-heating electric demand. Renters have few choices about the type of energy used for their non-heating needs. Tr. 11/28/89 (Lind).

161. For rental units, there is a split incentive for weatherization and investment in energy conservation because property owners believe they will not profit from efforts to upgrade efficiency and most tenants won't live in any given

housing unit long enough to get the value out of energy savings. Tr. 11/3/89 at 74-6 (Colton); tr. 10/20/89 at 126 (Patt).

162. A significant number of low-income households do not have very much choice of which energy source is used for what purpose in their home. Tr. 11/28/89 at 218 (Lind).

163. It can be more difficult to target weatherization and conservation programs to low-income households because of their lower level of literacy and less access to media. Tr. 11/21/89 at 26.

164. Low-income households will not voluntarily go into debt (even at low interest or no interest) because there are many situations where they are not going to be able to pay back the loan. Tr. 11/3/89 at 74-76 (Colton); tr. 11/21/89 at 13 (Prine); tr. 11/28/89 at 215 (Lind).

165. Any additional steps required of low-income households for their participation in programs will decrease the rate of participation. Tr. 11/2/89 at 389 (Colton).

A.7. Coordination of Existing Programs

166. The DSW has an ongoing committee called the Fuel Policy Advisory Committee (Fuel PAC) which includes representatives from VGS, BED, GMP, CVPS, the CAPs, and Vermont Legal Aid (VLA). This committee is a voluntary advisory committee that has been meeting periodically with the DSW for the past three and a half years. Tr. 11/1/89 at 218-220 (Prine); tr. 10/30/89 at 146-7 (Patt); Larsen pf. at 3.

167. The advantage of the Fuel PAC is that it allows utilities, CAPs, VLA, DSW and the Office on Aging to exchange ideas about the day-to-day administration of the fuel assistance programs. Tr. 11/1/89 at 274 (Prine).

168. Efforts at providing assistance to low-income households could be improved with better coordination among state agencies, low-income advocates and utilities. Tr. 11/1/89 at 274-5 (Prine); Colton pf. at 23-24.

169. The DSW is planning to convene an advisory committee to suggest solutions to the problem of credit balances which would be fair, simple and legal. This advisory panel will include some of the same members as the Fuel PAC, and oil dealers. Tr. 10/30/89 at 146-7; Patt pf. at 12.

170. Many utilities make referrals to the DSW, the WAP and social service agencies for their payment troubled customers. Alleman pf. supp. at 2; Ferris pf. at 5; W. Smith pf. at 3; Tower pf. at 4.

171. Utilities often have difficulty in identifying their low-income customers. Tr. 10/31/89 at 53 (W. Smith); tr. 11/3/89 at 31 (K. Smith); tr. 11/3/89 at 180 (Colton); Collins pf. at 3; Tower pf. at 2.

172. The CAPs work with the low-income households to help then when they are having difficulty with their welfare benefits or with other creditors including utility companies. The CAPs are funded by federal and state funds administered through the SOEO. Tr. 11/20/89 at 8 (Prine).

173. The federal LIHEAP guidelines allows up to 15% of a state's LIHEAP allocation to be set aside for use in the WAP. Tr. 11/22/89 at 44 (Greene and Struck).

174. The DSW set aside 15% of the federal LIHEAP grant for weatherization from FY82 through FY87. DSW Exh. 2.

175. The DSW has not set aside money for weatherization since FY88. DSW Exh. 2; SOEO Exh. 1.

176. The DSW informs its clients of the availability of the WAP but it does not make specific referrals nor does it prioritize its weatherization referrals. Tr. 10/30/89 at 126-29 (Patt).

177. The DSW does not adjust the amount of the supplemental fuel assistance benefit to households after they have been weatherized. Tr. 10/30/89 at 198 (Patt); tr. 11/1/89 at 44 (Patt); Deehan and Spinner pf. reb. at 3.

178. Expenditures on weatherization and conservation will reduce the overall use of energy in a household. Tr. 11/1/89 at 45 (Patt).

179. The DSW recently provided a list of the people receiving LIHEAP supplemental fuel assistance to the SOEO to enable them to market weatherization to households that have not previously been weatherized. Tr. 10/30/89 at 126 (Patt).

180. The WARMTH and ShareHeat programs serve as a source of funds to Vermonters facing heating crises after they have exhausted other options including the LIHEAP emergency fuel assistance program. Tr. 11/20/89 at 110 (Prine).

181. The purpose of the CAPs is to provide assistance to low-income households. They are funded by federal grants matched by the State and granted through the SOEO. The caseworker in a CAP agency will provide assistance to a low-income client who is having difficulty with their DSW case worker or with a creditor, including electric and natural gas utilities. Tr. 11/20/89 at 18 (Prine); tr. 11/1/89 at 138 (Prine).

B. Proposals for Change

B.1 Proposal for Programs to Meet Heating Needs

182. Roger Colton is an expert in the development of Percentage of Income Plans (PIPs) and in the evaluation of LIHEAP and other low-income energy issues. He has helped Rhode Island and Montana implement PIPs and has reviewed the efficacy of such plans in North Carolina, Utah and Maine. He has consulted with public utility commissions in California, Maryland, Rhode Island, Maine, Ohio and Michigan and with other state agencies in Illinois, Montana, Utah and Minnesota regarding low-income utility issues. Colton pf. at 2.

183. The DSW should continue to take steps to ensure that fuel assistance benefits are distributed so as to ensure that fuel assistance benefits are delivered to households according to need and available income. Colton pf. at 37.

184. The risk of limiting fuel assistance to only PSB regulated fuels is that it would create an incentive for low-income households to switch from unregulated fuel supplies which could lead to increased use of electric space heat. Sachs pf. at 7-8.

185. An energy assistance program that included only regulated utilities would completely ignore the needs of low-income households who rely on other fuel sources. Larsen pf. at 10.

B.1.A. Percentage of Income Program for Heating Bills

186. Under a PIP, a low-income household pays a set percentage of their household income as a co-payment to an energy supplier. In exchange for the monthly payment of this set percentage, the household is guaranteed service. Prine pf. at 19.

187. Under a PIP, the household's payment for the heating portion of their bill above their co-payment amount is

paid for out of the LIHEAP supplemental fuel assistance funds. Prine pf. at 21.

188. A PIP for heating needs would require a distribution of the LIHEAP benefits from the current fixed benefit adjusted for housing and energy type. A PIP would not increase the amount of money available for heating bills. Patt at 23.

189. A PIP targets the lowest income, highest usage customers for the highest LIHEAP benefit. It also would allow the highest usage, lowest income households to be identified and targeted for state-sponsored weatherization assistance programs and utility-sponsored efficiency work. Tr. 10/31/89 at 119 (Sachs); Prine pf. at 28; K. Smith pf. reb. at 3.

190. A PIP could reduce the need for emergency fuel assistance because it would be used only in situations where a recipient could not meet their percentage of income payment. Tr. 11/1/89 at 271 (Prine).

191. If the adjustments for high shelter costs and households with elderly and disabled recipients were included in a PIP, the PIP would not target benefits purely on need and consumption. Tr. 11/1/89 at 299 (Prine).

192. It is desireable to maintain the adjustment for high shelter cost and elderly and disabled recipients in the LIHEAP fuel assistance program. Tr. 11/22/89 at 176 (Rivers).

a. A PIP reinforces regular payment patterns by requiring a levelized payment throughout the year. Prine pf. at 29.

193. A PIP would encourage participation, and it would be easily understood. K. Smith pf. reb. at 3.

194. PIPs have not been implemented in any state with a high percentage on non-regulated fuel suppliers. The state of Maine, which has 70% of its fuel supplied by non-regulated fuel dealers, and Rhode Island, which has 50% of its fuel supplied by

non-regulated fuel dealers, are planning to implement PIPs for the 1990-91 heating season. Tr. 11/3/89 at 50-51; tr. 11/3/89 at 113 (Colton).

195. The implementation of a LIHEAP-based PIP would reduce the flexibility of fuel assistance clients with respect to which heating source is paid for with their assistance check because they would need to declare one fuel supplier with which the DSW would monitor the cost of heating energy. Tr. 11/1/89 at 47 (Patt).

196. Because a PIP is based on the percentage of income rather than some minimum monthly requirement, it provides no incentive to keep usage down. Williams pf. at 3.

197. A PIP does not effectively tie consumption to the cost of providing energy. K. Smith pf. reb. at 3.

198. The Chittenden Community Action Agency supports the implementation of a PIP. However, the other CAP agencies in the state: Bennington-Rutland Opportunity Council, Central Vermont Community Action, Northeast Kingdom Community Action and Southeast Vermont Community Action have not taken a position on the implementation of a PIP and have chosen not to participate in this docket. Tr. 11/20/89 at 9 (Prine).

199. The administrative and program costs associated with a LIHEAP-based PIP have not been studied by the DSW. Tr. 11/20/89 at 49-51 (Prine); tr. 10/30/89 at 88 (Patt); tr. 12/19/89 at 280 (Patt).

200. The implementation of a PIP would require the DSW to make major administrative changes to LIHEAP because of the large number of non-regulated fuel dealers. The cost of fuel supplied by bulk fuel dealers is not easily matched to the monthly LIHEAP benefit provided to DSW clients on a monthly basis. Tr. 10/31/89 at 254 (Patt); Patt pf. at 19.

201. The implementation of a PIP would increase the amount of information that the DSW would have to gather about a

participating household both at the beginning of the heating season when their fuel dealer is identified and at the end of the heating season when the actual expenditures for heat are monitored. Tr. 10/30/89 at 173 (Patt).

202. A PIP for heating needs is not supported by the DSW because of the cost of setting up such a program for non-regulated fuel dealers. Patt pf. at 22.

203. The Vermont Low-Income Advocacy Council (VLIAC) does not support the implementation of a heating PIP because they believe additional resources are needed to meet the needs of low-income people and that PIP would move the DSW away from providing an integrated benefits package, and that a PIP would be administratively difficult to implement. Tr. 11/22/89 at 175-77 (Rivers).

B.1.B. Buy-down Program for Heating Assistance

204. A buy-down program was proposed by Roger Colton, on his own behalf, to change the allocation of LIHEAP funds by distributing them in a two-step process. In the first step, the DSW would provide a base benefit payment which would be smaller than the current benefit. In the second step, a supplemental grant would be given to households who could prove that they had spent more on heating then a set percentage of income amount. Tr. 11/3/89 at 44; tr. 11/28/89 at 11; tr. 11/21/89 at 39 (Colton).

205. A buy-down program would identify those households who subsequent to the receipt of their LIHEAP benefits still devote an unreasonable portion of their incomes to their home heating bills. LIHEAP would then provide an additional payment to those households so as to buy-down the home heating bill. Tr. 11/3/89 at 44; tr. 11/28/89 at 11; tr. 11/21/89 at 39 (Colton).

206. A buy-down program does not require the same kind of data transfer as is involved in a PIP. Tr. 11/3/89 at 38 (Colton).

207. A buy-down program is administratively simpler than a PIP but succeeds in making the LIHEAP benefit more usage-sensitive. Tr. 11/3/89 at 38 (Colton).

208. Because of the high penetration of deliverable fuels in Vermont, a buy-down program is more administratively feasible than a PIP program. It would be easier to implement particularly for the deliverable fuel dealers. Tr. 11/3/89 at 41 (Colton).

209. The difference between a PIP and buy-down is that the buy-down is easier to implement but has a less well targeted benefit. A PIP is more effective at targeting benefits but less administratively simple because the payment schedule for deliverable fuels does not match the monthly payment schedule for LIHEAP benefit. Tr. 11/3/89 at 44 (Colton).

210. A buy-down program would rely upon the use of the LIHEAP emergency fuel assistance program to deliver benefits to households which usage is above a certain percentage of income. Tr. 11/20/89 at 154 (Prine).

211. The DSW does not support a buy-down proposal because it would require that the amount of the basic benefit be decreased and would result in some clients receiving sufficient benefits under the current program who would receive insufficient benefits due to the decrease in benefits. Tr. 11/20/89 at 174-6 (Patt).

212. Participants in a buy-down program may face an additional burden to their participation. They would need to pay significant costs for heating fuel up front before they could be determined eligible. Once they are determined eligible, they would likely need to go to a DSW office every month to get the supplemental benefit. Tr. 11/20/89 at 197-98 (Prine).

B.1.C. Other Recommendations for Changes to Heating Assistance

213. The DSW is considering the use of a percentage of income level as an additional qualifier for their emergency fuel assistance program. Tr. 10/30/89 at 133-4 (Patt); Patt pf. at 25.

214. The DSW should set the level of payments made under the full assistance program so as to account for differences in electric utility rates in various service territories of the state, in making direct payments to utilities or in establishing a sliding scale of customer payments in addition to LIHEAP that would provide for a more equitable and effective distribution of federal and state dollars. Collins pf. at 5.

215. LIHEAP should be designed to be usage-sensitive and income-sensitive so as to tie benefit amounts to actual usage and so as to guarantee that once LIHEAP benefits are distributed, that people do not pay more than a reasonable portion of their income for their heating needs. Tr. 11/3/89 at 42 (Colton).

B.2. Programs Targeted at Non-Heating Energy Use

216. Any new non-heating energy program should be provided in such a way that the administrative costs are not disproportionately high. Tr. 1/22/89 at 198 (Rivers).

B.2.A. Basic Energy Needs Program (BENP)

217. A basic energy needs program (BENP) (as proposed by Roger Colton on behalf of the Department of Public Service and endorsed by the Champlain Valley Office of Economic Opportunity) would cover a portion of the non-heat portion of each low-income participant's electric or gas bill and would be comprised of two components: co-payment based on household income and arrearage forgiveness. Colton pf. at 13; tr. 11/20/89 at 194 (Prine).

218. All households participating in the LIHEAP program would be eligible for the BENP. Colton pf. at 13.

219. Each household participating in the BENP would be required to pay the following portion of their income as a co-payment toward their non-heat electric or gas bills:

(1) Households at 0-50% of poverty: 5%
(2) Households at 51-100% of poverty: 6%
(3) Households at 101-125% of poverty: 7%

Colton pf. at 13.

220. The amount above the co-payment of a low-income customer's bill would be paid for in part, out of the "avoided costs" associated with disconnection, reconnection and slow payment by low-income households. Colton pf. at 18.

221. According to Roger Colton, a BENP is non-discriminatory if the avoided cost savings associated with disconnection, reconnection, and negotiation of repayment plans for low-income households exceeds the difference between the monthly charges for non-heating utility service and the household co-payment amount. Colton pf. at 14-18.

222. The Department's witness, Roger Colton testified that to the extent that there are costs associated with a BENP, those costs should be included in the company's revenue requirement as a line item in a rate case. Tr. 11/27/89 at 67 (Colton).

223. The earned credit provision of the BENP is designed to permit participating households to earn credits to

retire their pre-program arrears by making a fixed monthly payment. Colton pf. at 20.

224. Under the proposed earned credit provision, participating households would make a contribution to their pre-program arrears at the rate of $3.00 per month for twenty-four months. After six consecutive months of paying the $3.00 co-payment, the households would begin to receive credit to eliminate their pre-program arrearage. Colton pf. at 20-21.

225. The length of the arrearage program and the length of time before arrearage begin could be longer or shorter than the proposed 24 and 6 months, respectively. However, if either period is too long, the program will be less effective. Tr. 11/2/89 at 392 (Colton).

226. The earned credit provision of the BENP could reduce the costs associated with the collection of back bills. Colton pf. at 22.

227. DSW supports the use of arrearage forgiveness program for low-income households. Patt pf. reb. at 4.

228. A BENP would help utilities target their conservation programs to give priority to households receiving the greatest subsidy under the BENP. Tr. 11/3/89 at 211 (Colton).

229. The average fuel bill for the month of August 1989 for Vermont Gas System's customers who are recipients of DSW's checks was $17.37; this is equivalent to an annualized bill of $173.00. Tr. 11/3/89 at 137 (Colton); DPS Exh. 30.

230. Based on Finding 230, it may not be cost effective for Vermont Gas Systems to participate in a BENP because most of its low-income customers have non-heating bills which are less than their calculated co-payment amount. Tr. 11/3/89 at 137 (Colton); Larsen pf. reb. at 10-12.

231. Use of a percentage of income program for utility fuels only could provide a strong incentive for recipients to use

gas and electric utility service to provide an increasing proportion of their heating needs. Deeham and Spinner pf. at 10.

232. If an average non-heating bill is used to determine the amount paid under a BENP, there will be no incentive for participating households to use less energy than average. Larsen pf. reb. at 17.

233. Households will not participate in the BENP if their monthly bill is less than their calculated co-payment amount. Tr. 11/2/89 at 394 (Colton).

234. Households who chose not to participate in BENP have energy bills which are relatively low compared to other participants at the same income level. Finding 236.

235. People who will be non-participants in a BENP are those with one or both of two characteristics: they will have smaller monthly energy bills or higher incomes and will have higher income relative to their energy bills. Tr. 11/3/89 at 174 (Colton).

236. The estimated annual cost of the BENP will range from $4,639,120 to $7,584,400, plus the cost of forgiven arrears under the arrearage forgiveness programs, depending upon the percentage of income contribution from low-income households. This estimate is based upon the following assumptions: (1) the distribution of income for participants is the same as the distribution of LIHEAP participants for the 1988-89 heating season; (2) the average income within that distribution is the average of the range (i.e., that the average income is the range from $2,000.00 - $3,999.99 is $3,000 and $16,000 for households with income above $15,000); (3) the non-heating bill is $646; (4) the clients included in income ranges which have a negative company contribution will be non-participants in the program; and 5) no usage cap is implemented.

Number of	Average	Utilities' Total Contribution	Utilities' Company Contribution

Clients	Income	at 3%	at 7%
1,345	$ 1,000	$ 828,520	$ 774,720
5,010	3,000	2,785,560	2,184,360
4,860	5,000	2,420,560	1,438,560
2,335	7,000	1,018,060	364,260
949	9,000	356,824	15,184
394	11,000	124,504	(48,856)
214	13,500	51,574	(63,986)
53	16,000	8,798	(25,122)
TOTAL 15,060		$7,584,400	$4,639,120

Tower pf. reb. at 2-4; Findings 120 and 125; DSW Exh. 3 at 5.

237. Assuming that 100% of all residential disconnections can be attributed to low income households, GMP calculated its avoided costs as follows:

Disconnection Costs	$ 25,154
Reconnection Costs	15,273
Repayment Agreements	19,064
Write-Offs	97,064
Working Capital	26,270
Expenses for other collection related work on active accounts	308,320
Closed Accounts not charged off	14,234
	$505,690

These costs include neither the cost of arrearage forgiveness nor the administrative costs of a BENP. Tr. 12/18/89 at 175; Tower pf. reb. at 5-11.

238. The avoided costs calculated by GMP are overstated because more than half of the disconnections can be attributed to customers who are known to be higher income. Tower pf. reb. at 12.

239. The avoided costs associated with disconnection and reconnection of low-income customers are not sufficient to cover the costs of a BENP. Assuming that 25% of the costs of the BENP can be attributed to GMP because they have 25% of the residential customers within the state, the cost to GMP for a BENP would range from $1,159,780 - $1,896,100 per year. Their maximum avoided costs are $505,690. The costs of the program do not include the arrearage forgiveness component nor the administrative costs of a BENP and they assume that no

disconnections, reconnections or repayment agreements will occur while the company is using a BENP. Tower pf. reb. at 12.

ss for the DPS, that is limited to non-heating, regulated energy sources has not been implemented in any other state. Tr. 11/3/89 at 204 (Colton).

th a BENP will be addressed in the next phase of this proceeding. These concerns include conservation cups and fuel switching. Tr. 11/28/89 at 160-61 (Colton).

242. CVPS argues that because the BENP does not match the current fuel assistance fixed benefit, it would have incentives for fuel switching. Deehan and Spinner pf. reb. at 13.

B.2.B. Interim Lifeline Rates

243. GMP proposed an interim energy assistance program that would provide low-income customers with a credit to their customer charge approximately equivalent to the increase in their bill resulting from the Department of Public Service's loss of NYPA power. The program would use eligibility criteria similar to the Vermont telephone lifeline program and would be financed through a flat surcharge on the bill of customers not eligible for assistance. Tower pf. at 6.

244. The yearly revenue requirement for the interim lifeline rate would be collected from other GMP customers and would be $249,419. This revenue requirement is calculated as follows:

Assumptions

Current NYPA rate (as of 10/13/89)	$0.04903
Proposed DPS rate (DPS filing 8/25/89)	$0.06791
GMP residential customers	62,810
Vermont telephone lifeline customers (estimate based on 1988 eligibility criteria)	18,333
Vermont DPS block size	200 kwh per month

Annual Revenue Requirement

GMP lifeline customers (18,333 x .26)	4,767
Rate differential (proposed DPS rate - current NYPA rate)	$0.01888
Lifeline subsidy/customer/month (DPS block size x rate differential)	$3.78

Annual Revenue Requirement

Lifeline Direct subsidy (monthly Lifeline subsidy x GMP Lifeline customers x 12)	$216,002
Administration (estimate based on telephone lifeline)	$33,917
Total Revenue Requirement	$249,419

GMP Exh. 1.

245. Based on a yearly revenue requirement of $249,419, the monthly surcharge would be between $0.29 and $0.36 per customer per month. GMP Exh. 1 at 1.

The following calculations were used to make these estimates:

If surcharge were made to non-lifeline residential customers:

Non-lifeline customers: (residential customers - GMP lifeline customers)	58,043
Annual Revenue Requirement	$249,919
Annual Surcharge per Customer ($249,919 - 58,043)	$4.31
Monthly Surcharge per Customer ($4.31/12)	$0.36

If the surcharge were applied to non-lifeline residential and commercial/industrial customers:

Non-lifeline customer	58,043
Commercial/industrial customers	13,785
Total customers surcharged	71,828
Annual revenue requirement	$249,919
Annual surcharge per customer (249,919/71,828)	$3.48
Monthly surcharge per customer	$0.29

GMP Exh. 1 at 2.

246. The cost of GMP's interim lifeline rate would be subsidized by either the residential or all customer classes.

The revenue would be generated by a monthly service charge. Haggerty pf. at 5.

B.2.C. Lifeline Block/Rates

247. Central Vermont ranked the of programs for providing non-heating energy needs: (1) general effectiveness at solving the low-income problem; (2) maintenance of appropriate price signals; (3) efficiency of administration; (4) full participation of the targeted population; (5) equity among energy industry competitors; (6) total cost; and (7) degree of complementary to utility DSM. Deeham and Spinner pf. reb. at 18-23.

248. Based on the criteria in finding 245, CVPS ranked a fixed credit with a lifeline block as the preferred alternative, with a straight fixed credit and lifeline block as the second and third choice. Deehan and Spinner pf. reb. at 21.

249. CVPS did not recommend a specific size for the fixed credit or lifeline block. Tr. 12/18/89 at 124 (Spinner and Deehan).

250. The size of a lifeline block should be based on the level needed to support essential service including: refrigeration, lights and water, heating and water supply in areas where electricity is needed to pump water. Tr. 10/31/89 at 54-5 (W. Smith).

251. The size of a fixed credit or block should be determined based on an assessment of the size of the benefit to be given to low-income households. Tr. 12/18/89 at 124 (Spinner and Deehan).

252. A lifeline rate provides no way to target benefits to households with the highest energy needs. Tr. 10/31/89 at 140 (Sachs).

253. If a lifeline program applies to only regulated utility suppliers, it may provide an incentive for low-income

households to switch from non-regulated to regulated energy sources. Alleman pf. at 12; Larson pf. at 16-17.

254. A lifeline rate would be extremely easy to implement and could be increased to allow a low-income household customer more relief from high energy bills. A person receiving a lifeline rate could be guaranteed service and would benefit from paying a smaller portion of income for energy. Another advantage of a lifeline rate is that it could be implemented for other special needs customers such as elderly, or disabled. K. Smith pf. reb. at 2.

B.3. Programs Designed to Meet Heating and Non-Heating Needs

255. The CVOEO and VLA support the implementation of a PIP for heating energy and a BENP for non-heating energy. Prine pf. at 20-25; VLA Brief at 1-2.

256. There are administrative difficulties involved in implementing a PIP including: the tracking of a non-consumption based bill with a conservation cap based on consumption, the problem of determining a bill, and the problem of determining a billing amount if the percentage of income is less than the bill, and the problem of calculating two percentages - one for heating and one for non-heating. K. Smith pf. reb. at 4.

257. BED proposed two different scenarios to meet the needs for low-income households: (1) a discounted rate available to all eligible low-income households, with LIHEAP funds making up the difference between a household's actual energy usage and the discounted rate for heat; and (2) a discounted rate with a LIHEAP buy-down based on the household's percentage of income. K. Smith pf. reb. at 6.

258. BED's discounted rate would apply to all customers currently eligible for LIHEAP. The household would be responsible for paying at least a percentage of its income or the discounted bill amount. The rest of the cost to serve low-income

households would pass on to the rest of BED customers in rates. K. Smith pf. reb. at 6.

259. A discounted rate has some of the advantages of a lifeline in that it can be extended to special needs households, such as elderly, handicapped or households living in Section 8 housing. K. Smith pf. reb. at 4.

260. A discounted rate would be less costly than a lifeline to implement because it is rate and consumption based. By assigning a different rate for a group of customers, the utility is able to track consumption and administer a conservation cap. A discount rate is more flexible in that the percentage can be changed to reflect winter/summer cost and usage differences. K. Smith pf. reb. at 5.

261. A discounted rate does not encourage conservation. However, because a customer is billed for actual usage, he/she is aware of variations in consumption and their effect on the bill. K. Smith pf. reb. at 5.

262. BED would bill the DSW for the consumption of energy above a certain percentage. K. Smith pf. reb. at 6.

263. BED's proposal for a combined discount rate would help alleviate the problems of under or overpayment of the DSW's LIHEAP benefit. K. Smith pf. reb. at 6.

264. BED projects that with 1,600 LIHEAP participants with an average income level of $5,000, a discounted bill option would increase the cost of the tail block for a 15%, 35%, and 55% discount from $0.0761 to $0.0773, $0.0790 and $0.0806 per kwh, respectively. BED Exh. 4.

265. A lifeline block option would increase BED's tail block for the residential class from $0.0761 to $0.0770 and $0.0778 for a block size of 400 and 600, respectively. The percentage increase to other customers, assuming the lifeline rate would be the same as the NYPA rate for the first 250

kwh/month, would be 1.18% for a block size of 400 kwh/month and 2.27% for a block size of 600 kwh/month. BED Exh. 4.

266. A discounted billing plan could be easily implemented within BED's existing customer system. Tr. 12/18/89 at 229 (K. Smith).

267. The DSW is not willing to participate in the pilot program being proposed by BED because the benefits given to customers of BED would be different than their neighbors who are not BED customers. Tr. 12/18/89 at 248 (K. Smith); tr. 12/19/89 at 295 (Patt).

B.4. Other Forms of Assistance

268. Recipients of fuel assistance could be coded on customer records and based on the coding, customers would be exempt from deposit requirements and be given more lenient treatment with respect to disconnection of service. Alleman pf. at 9.

269. Modifications to the deposit and disconnection rules to recognize the needs of publicly assisted households are within the PSB's authority to implement. Alleman pf. at 9.

270. CVPS is interested in incorporating a "needs test" to target deposit and disconnection protections to low-income households. Deehan and Spinner pf. at 34.

271. CVPS is evaluating the usage of specially targeted arrearage programs. Tr. 12/18/89 at 137 (Deeham and Spinner).

272. One method of addressing the barriers to weatherization and conservation of rental units is a "time of sale" ordinance. This requires dwelling units to be brought up to a specified energy efficiency level before they can change ownership. Tr. 10/31/89 at 155 (Sachs).

273. In a tight rental market, as in many parts of Vermont, a time of sale energy efficiency law may lead to higher

rent and the eviction of tenants. Tr. 11/2/89 at 16 (Prine).

B.5. Coordination of Assistance Programs Among Agencies and Utilities

274. If customers who are identified as low-income are targeted for DSM measures, it would lower their utility bills. Tr. 11/2/89 at 257 (Tower).

275. Any low-income energy plan should have a recommended DSM program to decrease the heating and non-heating energy needs of low-income households and at the same time encourage conservation. K. Smith pf. reb. at 2.

276. Programs developed for low-income households in this docket should be coordinated with the 20-year Electric Plan and Vermont Public Service Board Dockets 5270, 5330 and 5331. W. Smith pf. at 3.

277. Utilities currently have information in their customer payment records that would indicate to them who their low-income customers are. Patt pf. reb. at 5; Colton pf. at 33-34.

278. The utilities should be required to send outreach letters to potentially low-income households which refer them to the DSW for participation in the LIHEAP and other assistance programs. Tr. 11/1/89 at 258 (Prine); Colton pf. at 33-34; Patt pf. reb. at 5.

279. Utilities could provide LIHEAP outreach letters and targeted conservation in the following six situations: (1) if a customer receives two or more disconnection notices during a winter season (winter treatment history); (2) where a household accumulates more than a specific score over a year based on giving points on a monthly basis to each activity associated with a disconnection (e.g. sending a late payment notice, negotiating a repayment plan, actual disconnection); (3) a household is disconnected; (4) a household has arrears of over 90 days over a

certain amount going into the winter (prewinter arrears); (5) a household has arrears above a certain amount for longer than 90 days in April (spring arrearage treatment); and (6) a household is shut off in spring when the stricter rules for winter disconnection are removed (spring shut-off). Colton pf. at 33-34, 47.

280. The Board should require utilities to provide assistance on LIHEAP outreach. The details of utility outreach should be worked out collaboratively. Colton pf. at 32, 35.

281. Based on information contained in their customer records, utilities could target their conservation and DSM programs to low-income households. Colton pf. at 47; K. Smith pf. at 2.

282. A low-income energy assistance program should recognize, encourage and potentially be integrated with utility DSM programs for low-income customers. Sachs pf. at 11.

283. A weatherization program should be incorporated into an energy assistance program so that the need in the long-term for fuel assistance would be reduced in housing units that are insulated under such a program. Alleman pf. at 11.

284. Many low-income households produce costs associated with disconnection, reconnection, and negotiation of repayment agreements. Many of these costs could be avoided by specific targeting to low-income households of energy conservation programs. Colton pf. at 38-9.

285. Conservation measurers provided to payment-troubled households should be provided in a manner that minimizes the market barriers to participation by those customers. Colton pf. at 42.

286. Utilities should try to get landlords to commit to rent stabilization as a part of their agreement when they install conservation and weatherization measures in rental units. Tr. 11/3/89 at 77-8 (Colton).

B.6. Pilot Programs

287. Each Vermont utility is unique in rate structure, geographical area served (rural and urban), customer demographics, energy needs, customer turnover ratio, and the services it provides. K. Smith pf. at 1.

288. The differences among the utilities may make it difficult for one statewide program to meet the energy needs of all low-income Vermonters. K. Smith pf. at 1; Collins pf. at 2.

289. The distribution of low-income people among the service territories in the state is not necessarily even. In some service territories there is a significant portion of lower-income persons while in others there are larger numbers of wealthier persons in relation to those who have lower incomes. Likewise, not all electric utilities in the state have the same ratio of commercial/industrial customers to residential customers. Collins pf. at 2.

290. PIPs were implemented on a pilot basis in the states of Rhode Island, Montana, Washington, Wisconsin, Minnesota and at Philadelphia Gas Works. Tr. 11/3/89 at 112, 118, 120, 121, 125 (Colton).

291. There is no need to do pilot projects for substantive learning because substantive lessons about PIP programs have been learned in other states. A pilot project would identify implementation issues that are specific to Vermont. Tr. 11/3/89 at 125 (Colton).

292. A pilot program should be run for one or two years depending upon its design. If the planning for implementation is done for in advance of the winter, the pilot project would need to run for one year. If the planning is not complete far enough in advance to address implementation issues, the pilot program may need to run for two years; during the first year the problems in design would be identified and during the

second year the pilot would be completed. Tr. 11/28/89 at 37 (Colton).

293. The minimum size of a pilot project should be between 800 and 1,000. Tr. 11/28/89 at 39 (Colton).

294. A pilot program should include all persons in a discrete geographic location, such as a district office for the DSW or an entire territory or utility. Tr. 11/28/89 at 39-40 (Colton).

295. The DSW is opposed to the implementation of a pilot program unless it does not require their participation. This is because most of the costs of a program change for the DSW is associated with changing their computers. Tr. 12/19/89 at 294-295 (Patt).

296. The DSW would oppose a pilot programs in which they give different benefits to different households based on the utility from which they receive service. They have a concern about programs where certain people are arbitrarily treated differently than the entire caseload. Tr. 12/19/89 at 295 (Patt); tr 10/31/89 at 255 (Patt).

297. The CVOEO suggested that it would be difficult to develop a pilot project because no utility can be considered as average and the utility service territories do not match the district offices of the DSW. Tr. 11/1/89 at 287 (Prine).

298. The utilities have payment histories of customers. These could be useful in identifying households that may have significant payment trouble and may also be low-income. Colton pf. at 34-35.

C. Funding of Proposals

299. Any funding source for energy assistance programs should have the following characteristics: (1) it should generate sufficient revenue; (2) it should adjust to changing prices for energy and economic conditions; (3) it should not penalize the lowest income; (4) it should not promote non-cost

based fuel switching; and (5) it should not promote increased energy consumption. Deeham and Spinner pf. at 18 at 6.

300. The general fund would provide the most progressive form of funding and would not discriminate across fuel types. Tr. 11/1/89 at 303 (Prine); Deehan and Spinner pf. at 20.

301. General fund money is a scarce resource for which there is a great deal of competition. Funding for any programs would be subject to yearly appropriation from the Legislature. Deehan and Spinner pf. at 21.

302. If the DSW were to get additional funds from the general fund for their programs, the fuel assistance program would have a lower priority than other DSW programs such as ANFC and Medicaid. Tr. 10/30/89 at 199 (Patt).

303. An energy tax on all non-transportation related energy consumption could be structured to augment LIHEAP funding for a comprehensive low-income energy program. An energy tax of 1% on all non-transportation energy suppliers would raise approximately $7.0 million per year. Deehan and Spinner pf. at 21.

304. An energy tax would be less regressive than a sales tax on necessities because as income increases energy consumption also increases. Tr. 11/2/89 at 193-4 (Deehan and Spinner).

305. A tax rebate program could be implemented as a part of the energy tax. This tax rebate program would be similar to the sales tax rebate program. Tr. 11/2/89 at 194, 220 (Deehan and Spinner).

306. The current sales tax program does not adjust the benefit based on household size and therefore some households below the poverty level are not eligible for the rebate. Tr. 11/1/89 at 264.

307. One barrier to participation in tax rebate programs is the lower level of education among potential recipients. Tr. 11/1/89 at 265 (Prine).

308. A surcharge on regulated and non-regulated fuels at the wholesale level would be less regressive than a customer sales tax on heating fuels and would also obtain a contribution from the non-regulated fuel supplies. Rivers pf. supp. at 3.

309. A tax or charge for utility service could be used to augment current LIHEAP funds. Such an assessment would provide a stable source of funding but it may encourage non-low-income households to switch energy supplies. Deehan and Spinner pf. at 22, 25.

310. Cost savings from reduced bad debt could be used to fund assistance to low-income households. The magnitude of these cost savings have not been identified. Deehan and Spinner pf. at 22-3.

III. DISCUSSION AND CONCLUSIONS OF LAW

A. Introduction

In this docket we have taken testimony in many areas related to the provision of energy services to low-income households. Based on the testimony and exhibits that we have received in this docket, and on topics upon which parties have indicated they are willing to provide additional testimony, the following six areas can be identified as components of the energy package for low-income households:

(1) heating energy;

(2) the non-heating energy;

(3) weatherization assistance;

(4) utility-sponsored conservation and demand-side management programs;

(5) specially targeted deposit and disconnection procedures; and

(6) coordination among the organizations involved in providing energy and/or assistance to low-income households.

The first five areas interact with each other in various ways and a well-organized system each is enhanced by good coordination among them. Each low-income household may have one, two or more suppliers for their basic heating and non-heating needs. All households will use electricity for some of their non-heating energy, notably lighting and to a lesser extent hot water and cooking, and may use electricity for part or all of their heating needs.

The analysis of heating and non-heating needs of low-income households is complicated because bulk fuel dealers supply a significant portion of the fuel in the State of Vermont. Fuel dealers supply fuel for heating to 85% of all LIHEAP recipients. Although no specific figures are available for the non-heating needs of low-income Vermonters, it is estimated that

fuel dealers supply fuel for water heating to close to half of Vermont households and for cooking to over a quarter of Vermont households. To address the concerns of low-income households with respect to non-utility energy suppliers, we invited non-regulated suppliers of energy to participate in this docket. No suppliers of unregulated energy chose to participate in this docket.

The third and fourth portions of this package (weatherization, and conservation and DSM measures) will reduce the heating and non-heating usages of low-income households. Weatherization helps reduce the heating cost, and conservation and DSM investments help reduce their non-heating costs.

Finally, the special deposit and disconnection protections would help households for whom the other forms of assistance are insufficient for maintenance of their basic energy service. Coordination between programs is crucial because in a well-coordinated system, the households with the highest use and lowest-income will be targeted for weatherization and conservation to reduce their consumption and, ultimately, their cost to society in direct welfare benefits.

B. Summary of Conclusions

In this docket we have reached the following conclusions about these six parts of the overall energy package for low-income households:

(1) The LIHEAP program, which is administered by the Department of Social Welfare, appears to have sufficient funding, on average covering 84% of recipients' heating costs. However, the parties in this proceeding and other non-regulated fuel vendors should work together to ensure that the benefits are distributed to provide the highest benefits to households with the lowest incomes and highest energy costs relative to income.

(2) The loss of the DPS/NYPA block and the higher cost of replacement power will have a significant impact on the state and especially on low-income households; therefore, a program should be designed to provide assistance for the non-heating portion of electric usage of low-income households.

(3) The Weatherization Assistance Program will not have sufficient funding for continued operation at its current level beyond April 1990; parties to this proceeding should work together to ensure that this funding is continued.

(4) The design of the conservation and demand-side management programs of electric and gas utilities is progressing. The potential for reducing societal costs by specifically targeting these programs for low-income households should be a part of this design.

(5) Recommendations for targeted deposit and disconnection protections will be explored in a later phase of this docket to be continued later this spring.

(6) Parties in this docket should continue to work together with unregulated fuel suppliers to guarantee that these five forms of energy assistance are more closely integrated to provide for the overall energy needs of low-income households.

In the rest of this section, we will do the following: (1) outline the jurisdiction of the Public Service Board with respect to low income households; (2) outline conclusions about each of these six areas of the overall energy package for low-income households; (3) recommend actions the Public Service Board should take to address the energy needs of low-income households; (4) recommend actions that the State of Vermont should take with respect to providing energy to low-income households; and (5) outline topics to be addressed in the next phase of this investigation.

C. Jurisdiction of Public Service Board

In considering the five listed areas of low-income energy assistance, it is clear that the Public Service Board does not have jurisdiction in many areas and has limited jurisdiction in others. This section will first outline areas where the Board has jurisdiction. Next, it will outline limits to the Board's jurisdiction. Finally it will outline areas where the Board has no jurisdiction.

Current law does not expressly empower the Board with the authority to regulate all energy vendors with respect to their participation in low-income energy assistance. Sections 201-203 and 209 of Title 30, Vermont Statutes Annotated, give the Board general jurisdiction over matters relating to the reasonableness of operation of companies owning or conducting any public service business or property used in connection therewith. However the authority of the Public Service Board is limited to "compan[ies] engaged in the manufacture, transmission, distribution or sale of gas or electricity directly to the public or to be used ultimately by the public for lighting, heating or power . . . ." 30 V.S.A. § 203.

As parties noted, the Board's jurisdiction over companies within its jurisdiction is limited to those specifically granted or necessarily implied in the Board's mandate granted by the Legislature. Trybulski v. B. F. Hydro-Electric Corp., 122 Vt. 1 (1941). Furthermore, the Legislature in 30 V.S.A. § 218(a) has expressly prohibited rates that are "unjust, insufficient or unjustly discriminatory". The limits of this prohibition are not clear, and the point at which discrimination becomes "unjust" is inherently uncertain and will require fact by fact application of the Board's judgment in many cases. However, the Board's traditional commitment to a primary focus on cost-based pricing offers some guidance in this area, as does the Vermont Supreme Court's opinion that utility rates must

be cost-based. See e.g. Petition of Green Mountain Power Corp. 131 Vt. 284 (1973).[2]

The Department of Public Service cited four cases in support of the proposition that the goal of continuous utility service should justify the implementation of a non-heating energy program. Close reading of these cases reveal that they rely upon statutes and rules in other states that deal with deposits and disconnections. The Vermont Legislature has explicitly addressed that issue in 30 V.S.A. § 209(b) and (c). We do not read 30 V.S.A. § 209 as authorizing the Board to abandon cost-based pricing in areas other than deposits, disconnects, reconnections and other areas identified in that section, even if there are powerful policy arguments in favor of doing so. Programs that deliberately allow major non-cost-based cross-subsidies should require specific legislative authorization.[3]

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2. The cases cited by parties demonstrate that the State of Vermont is consistent with other states in its requirement of cost-based pricing, with some significant exceptions. See Mountain States Legal Foundation v. Utah Public Service Commission, 636 P.2d 1047 (Utah 1981); Mountain States Legal Foundation v. Public Utilities' Commission, 590 P.2d 495 (Colo. 1979); Blackstone Valley Chamber of Commerce v. Public Utilities Commission, 396 A.2d (R.I. 1979); United States Steel Corp. v. Pennsylvania Public Utility Commission, 390 A.2d 865; In re Narragansett Electric Company v. Harasch, 368 A.2d 1194; Greater Birmingham Unemployed Committee v. Alabama Gas Corp., 86 PUR 4th 218 (1987); Citizens Action Coalition of Indiana, Inc. v. Public Service Co. of Indiana, 450 N.E. 2d 98. See American Hoechest Corp. v. Dept. of Public Utilities, 399 N.E. 2d 1 (Mass. 1980); In re Arizona Public Service Co., 91 PUR 4th 377; and In re Application of Hawaii Electric Light Co., 594 P.2d 612 for exceptions to cost-based pricing. See also, discussion in Public Utilities: Validity of Preferential Rates for Elderly or Low-Income Persons, 29 ALR 4th 615.

3. For example, in 30 V.S.A. § 218(c), the Legislature explicitly authorizes the establishment of

(continued...)

Several areas of the overall energy package of assistance to low-income households are under the jurisdiction of the Public Service Board: (1) utility service provided to households for heating needs; (2) utility service provided to households for non-heating needs; (3) the conservation and DSM programs being developed in Docket 5270; and, (4) the targeting of deposit and disconnection protections to low-income households.

In contrast, the Board has no jurisdiction over several areas involved in providing energy assistance to low-income households. For example, the Board has no jurisdiction over non-regulated fuel suppliers.

In addition, the Board has no jurisdiction over two programs that were discussed in this docket: the Low-Income Home Energy Assistance Program (LIHEAP) and the Weatherization Assistance Program (WAP). Under 33 V.S.A. § 2504(a), the Department of Social Welfare may provide aid required for the administration of "general assistance". This is defined to mean:

> "financial aid to provide the necessities of life including food, clothing, shelter, fuel, electricity, medical and other items as the commissioners may prescribe . . ."
> 33 V.S.A. §§ 2504(b), 3001(4).

The Low-Income Home Energy Assistance Program is a federal block grant program authorized under the Low-Income Home Energy Assistance Act of 1981, codified at 42 U.S.C. § 8621 et. seq., which is administered by the Department of Social Welfare. The Weatherization Assistance Program is administered by the State Office of Economic Opportunity using grants from the federal Department of Energy. There is no specific state statutory authority for this program; it is codified at 42 U.S.C. § 685 et.

3.(...continued)
a telephone lifeline program which provides a benefit to specific customers which is paid for by all customers.

seq. with rules implementing the program at 10 CFR, Part 440. Neither program falls within the jurisdiction of the Public Service Board.

D. Conclusions

D.1. Heating Energy

In the first phase of this docket we heard extensive testimony on the existing Low-Income Home Energy Assistance Program which is funded by the federal government and provides direct assistance to low-income households for their heating needs. The LIHEAP program, which is administered by the Department of Social Welfare, is comprised of two components: the supplemental fuel assistance, and emergency fuel assistance. Under the supplemental fuel assistance program, participating households are given a flat grant on a monthly basis for the five or six months of winter (from November 1 through March 31 and including October for households with elderly and disabled persons). The amount of the grant is based on the type of housing (multi-family, single family, mobile home, renter or roomer) and the type of fuel. Adjustments to the basic grant are also made for households with elderly and disabled persons and households with high housing costs. The emergency fuel assistance is provided to households with a fuel emergency as evidenced by a shutoff notice or less than three day's worth of fuel and proof of extenuating circumstances that led to the fuel emergency.

The supplemental assistance program has had sufficient funds to cover, on average, 84% of the heating costs for low-income households. However, there is a large minority of households (about 25%) with significant credit balances and a larger minority (around 50%) with overdue bills. The households with overdue bills are, in many cases, households that have significantly higher heating costs than the average because they live in energy inefficient housing units. These households are

not eligible for emergency fuel assistance because the program does not recognize an energy inefficient household as an "extenuating circumstance". For every low-income household with a credit balance with their fuel dealer or utility, there is at least one other household that risks disconnection of essential utility service, must eat less, or gets funds from WARMTH or ShareHeat to pay their fuel dealer.

Under the current fuel assistance program, there is significant potential for supplementing primary fuel source with electric heat. Households with higher than average heating bills may have an incentive to use an electric space heater or their electric stove if they cannot afford to pay for their bulk fuel delivery. This is because they would have to pay for their bulk fuel in advance, while their electric usage is paid for in arrears.

The current emergency fuel assistance program, because it depends upon a fuel crisis, provides an incentive for households that are stretched financially to get a disconnection notice so that they may be eligible for emergency fuel assistance. The preparation and delivery of a disconnection notice imposes a cost to electric and gas utilities. Additionally, a disproportionate percentage of the recipients of emergency fuel assistance heat with natural gas and electricity.[4]

The current LIHEAP supplemental fuel assistance program does not adjust benefits to households that have been weatherized; this may create additional imbalances in the program. Households that benefit directly from weatherization

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4. Recipients of housing subsidies are not eligible for supplemental fuel assistance, but are eligible for emergency fuel assistance. The higher rate of use of emergency fuel assistance among users of regulated fuel sources may, in part, reflect the high penetration of electric heat in subsidized housing units.

will benefit indirectly each year because their dwelling unit will use less heat than an average unit with similar characteristics. Units which have not been weatherized and are poorly insulated, for whatever reason, will have higher energy bills each year than comparable units. These households will not get the initial benefit of the weatherization and they will get only an average LIHEAP supplemental fuel assistance benefit, even if their actual heating costs are above average.

Two parties in this proceeding, Vermont Legal Aid (VLA) and the Champlain Valley Office of Economic Opportunity (CVOEO) have contended that the existence of large credit balances requires a major revision to the allocation of LIHEAP from the flat grant system to a Percentage of Income Plan. Under a PIP, a household is required to pay a fixed percentage of their income toward their heating bill and any amount above that fixed percentage of income is paid to the utility or fuel dealer out of LIHEAP funds or other sources of funds.

The Department of Social Welfare and the Vermont Low-Income Advocacy Council are opposed to the implementation of a Percentage of Income Plan. They cite the high administrative costs of converting and maintaining such a program. In addition, they suggest that a PIP differs from the way in which the Department of Social Welfare attempts to coordinate all of the benefit packages of its clients.

We conclude that a PIP would better target the LIHEAP benefits so that higher benefits are given to households with the highest energy cost and lowest incomes[5]; however, we also conclude that a PIP is not the only way to improve targeting of

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5. The federal guidelines require that the "highest level of assistance will be furnished to those households which have the lowest incomes and the highest energy costs in relation to income, taking into account family size."

benefits. Although the Department of Social Welfare has done no estimates of the administrative costs of a PIP, we find the concerns of the DSW and the Vermont Low-Income Advocacy Council about the high costs of administration of a PIP persuasive. Although PIPs have been piloted in several other states, no PIP has yet been successfully implemented in any state that has a high market penetration of unregulated fuel dealers.[6] In Vermont, 85% of all heating energy is supplied by non-regulated fuel suppliers. Additionally, a PIP would be particularly complicated to administer in Vermont because the energy assistance checks are issued once a month while fuel dealers fill the tank when it is nearly empty; thus it is difficult to match the benefit to the usage. We also have concerns that a PIP does not include any incentives for conservation.[7]

Thus, we are sympathetic to the concerns of the DSW about the cost of administration of a PIP. However, we would strongly recommend that DSW continue to adjust the supplemental and emergency fuel assistance to better target households with the highest need. They could do so by using some indication of the percentage of income spent for heating. The administration of LIHEAP funds affects the utility companies and unregulated fuel suppliers in the State.

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6. The states of Maine, which has 70% of its fuel supplied by unregulated fuel suppliers, and Rhode Island, which has 50% of its fuel supplied by unregulated fuel dealers, are planning the implementation of PIPs for the 1990-91 heating season.

7. It should be noted that there is no cap on usage because households receiving the PIP benefit do not pay the cost of the last unit of usage; they only pay for the first. While in many households there may be reason to increase the level of heat used from an unhealthy low level of heating to a more normal level, in the absence of any cap on usage the household will have no incentive to conserve energy. Additionally, there is no state that has successfully implemented a usage cap.

The consultant for the Department of Public Service, Roger Colton, recommended that the Department of Social Welfare implement a buy-down program to target the benefits to the highest use, lowest income households. Under a buy-down program, the basic LIHEAP benefit would be decreased and households with bills higher than a specified percentage of income would receive supplemental payments. Although this idea is new and untried, the Department of Social Welfare rejected it because it would reduce the basic benefit of current recipients. Keeping basic benefits at a higher level is a luxury that Social Welfare may be able to afford when they have excess money in this program. However, when households with excess benefits accumulate large credit balances in their account with their fuel dealer or utility, other equally deserving households will be unable to afford their energy.

The Burlington Electric Department has offered to run a pilot program for low-income households that would combine a buy-down program with discounted utility rates to offer an energy package for both heating and non-heating needs. No testimony was taken about how this program would be coordinated with other providers of heating and non-heating energy in Burlington. Again, the Department of Social Welfare will not participate in such a pilot because it would mean that similar households would get different benefits because they live in the territory of a different electric company. This concern is facially reasonable, but ultimately unpersuasive. This is because the DSW also does not currently adjust their benefit to reflect on differences in electric rates that do not treat similar households, in different utility service territories, the same. This is so, despite the fact that the rate charged by each electric utility for residential service differs from other electric utilities.

Although we would not recommend that the DSW be required by the Legislature to implement a PIP, we would

encourage utilities, the DSW, the DPS and low-income advocates to work with the Legislature to change the LIHEAP program in the following manner:

(1) The LIHEAP supplemental fuel benefits should continue to be adjusted to provide the highest benefit to households with the lowest income and the highest energy usage relative to income;

(2) The credit balances which have accumulated with the fuel dealers and utilities in the accounts of LIHEAP recipients should be returned to DSW for redistribution to households with higher energy needs.

(3) As a part of this retargeting, DSW should analyze the extent to which households that have been weatherized also have credit balances. To the extent that they may be receiving an excess supplemental fuel benefit, households that have been weatherized should have their basic LIHEAP benefit adjusted to account for the direct savings associated with the implementation of weatherization measures.

4) The emergency fuel assistance program should be available for households that have paid higher than a specified percentage of their household income during the winter months. Low-income households should not be required to obtain a disconnection notice and prove extenuating circumstances to qualify for emergency fuel assistance. This change would encourage better financial planning by removing an incentive for the low-income households to receive a disconnection notice. It would reduce current utility costs for the needless preparation of disconnection notices, with resulting significant benefits for all ratepayers. It would also provide to the DSW a list of households who should be referred to the SOEO and utilities for additional weatherization and DSM work.

5) The Department of Social Welfare should be encouraged to participate in a pilot program with Burlington

Electric Department to establish estimates of the costs of a buy-down program or to investigate the costs of adding a percentage of income measure as apart of the LIHEAP supplemental fuel assistance.

D.2. Non-heating Energy

The Public Service Board has dealt with a concept of a lifeline rate to provide for basic electric needs since the early 1970s. From its beginning, the Board implemented, in the residential rates, an initial block of 100 to 300 kilowatt hours per month which reflected the allocation of New York Power Authority (NYPA) sales of 100,000 kilowatts from St. Lawrence and 50,000 kilowatts of Niagara power to rural and residential customers of Vermont utilities. Since July 1, 1985, the NYPA power produced at St. Lawrence has been gradually phased out, and since July 1989 the Niagara power has been allocated only to the preference customers -- customers of municipal and electric cooperatives. The impact of the loss of NYPA power has been significant because 75 to 80 percent of rural and residential customers in the state have lost a low-cost source of electricity for their very basic energy needs. The loss of NYPA power from Niagara in 1989 has meant that the DPS has been unable to provide this reasonably priced power to the rural and residential customers of the seven private utilities in the state.

The impact of the loss of the DPS/NYPA block has been significant to all rural and residential customers but it is even more difficult for households that currently have difficulty paying for their electric needs. The estimated cost of the loss of DPS/NYPA block, to low-income households is between $1 and $3 million.

When the Legislature and other parties requested that the Board open this docket, they cited the loss of NYPA power as a significant factor in the need to address the needs of low-income households. In this docket we have identified

additional factors. Although nearly half of the energy usage of low-income households is for non-heating energy, there is currently no program to address these needs. The cost of non-heating energy can be significant -- averaging $646 per household per year. Reductions in funding for medical costs and housing have put additional strains on the limited budgets of low-income households.

Four proposals were received for programs to address the non-heating needs of low-income households: (1) a Basic Energy Need Program as proposed by the DPS; (2) fixed credit or fixed/credit lifeline block as proposed by CVPS; (3) GMP's interim lifeline rates; and (4) discount rates combined with a heating buydown as proposed by BED.

The BENP, as proposed by the DPS would have two components: a co-payment from the participants equal to between 5 and 7% of the household income and an arrearage forgiveness program to eliminate arrearages incurred by households prior to their participation in the program. The DPS argued that the cost of the BENP, equal to the difference between actual energy usage and the participant's co-payment amount, would be covered by the avoided costs of disconnection, reconnection, repayment plans and working capital and would result in no rate cross-subsidy. If supported by the facts this calculation would overcome objections that such rates are discriminatory. Unfortunately, on the facts in the current record, the hearing officers have determined that even with the most optimistic assumptions about the number of disconnections attributable to low-income households, the avoided costs are insufficient to cover the cost of the program.

CVPS presented studies to support its preference for a lifeline credit, with or without lifeline discounted rates, up to a specific level of usage. CVPS did not develop their proposal in sufficient detail to indicate the size of the lifeline block, the level of a lifeline discount, nor the overall cost of the

program. The magnitude of the cost of the program could not be determined. CVPS's lifeline program would, however, be similar to the cost-based rate that all rural and residential customers have been paying for the DPS/NYPA block.

GMP presented a proposal for an interim lifeline rate. It would give to all of their customers who are eligible for the current telephone lifeline program an electric lifeline rate at the same level the customers received before the reduction in the size of the DPS/NYPA block. All other residential customers would see a decrease in the size of the DPS/NYPA block and an increase in the cost of electricity to account for the loss of the NYPA power and to cover the cost of the rate for participants in the lifeline program. We have concluded that this proposal is attractive, but that this program as proposed would require legislative authority in order to avoid charges that it constituted discriminatory ratemaking. Although it has been argued that the Board could order the rates because of an emergency under 30 V.S.A. §229, the Board did not accept this argument in Docket 5371. (Order entered December 15, 1989).

BED proposed a discounted rate as a part of their pilot program for a total energy needs program. This program would require Board approval and authorization from the Legislature, because it requires a rate cross-subsidy.

We recommend that the programs proposed by BED and GMP be considered by the Legislature and that these utilities be given authority to run such programs for next winter. The BED pilot program would develop additional information on long-term programs for low-income households and would allow the DSW to experiment with the PIP concept. GMP's interim rates would soften the impact of the loss of the DPS/NYPA block on low-income households.

Because of the short schedule for hearings, the Hearing Officers were not able to develop a complete record on the other

alternatives for providing for non-heating needs; however, we were able to identify concerns about the program alternatives. Any program to address the non-heating needs of low-income Vermonters would need to receive authorization from the Vermont General Assembly. These programs could be funded through a general fund allocation, an all-fuels tax or through some form of rate cross-subsidy. Many of the factors affecting the cost of each program were not developed in sufficient detail to make a complete estimate of cost. Many of the implementation issues that would affect the amount of subsidy such as conservation caps and the kwh per month for non-heating usage, were not developed. The cost of a BENP was developed only in sufficient detail to determine that the cost of the program would not be covered by the avoided costs associated with deposits, disconnections, reconnections and repayment plans.

Finally, none of the programs proposed directly addressed the needs of low-income customers' whose non-heating needs are provided by non-regulated fuel dealers. If a program is designed that provides a benefit larger than an amount equal to the value of the loss of the DPS/NYPA block, it should also address the needs of low-income households. CVPS has argued that the BENP would cause fuel switching because the relatively lower cost of electricity would cause low-income households to switch to electric energy for non-heating uses. However this concern arises because CVPS assumes that low-income households have a choice about the type of stove or hot water heater that they use. In fact, most low-income tenants have no such choice, and when they do have a choice they do not have the capital available to switch to an alternative form of energy. As hearing officers, our major concern about an energy program which attempts to provide its benefits through electric rates is different; while there is limited potential for fuel switching, the program depending upon its design, would solve only a part of the

existing problems because it would fail to meet the needs of households which do not provide for most of their non-heating needs with electricity or natural gas.

The Hearing Officers are interested in more fully developing two proposals to provide a better basis for evaluation: BENP and fixed credit or fixed credit/lifeline block. While we have concerns about the fact that the BENP does not have a limit on usage and a conservation cap may be difficult to implement, we have concerns about the lifeline credit and discounted rates. Both of these may be easier to implement because of their simplicity, but they also suffer from the shortfall of the current LIHEAP program in that they neither target the benefit nor identify the households with the lowest income and highest energy bills. By identifying households with lowest income and highest energy usage, utilities and the State could target weatherization, and conservation and DSM programs.

D.3. Weatherization Assistance

The Hearing Officers heard three days of testimony on the WAP. Based on that testimony, we recommend that the program continue to be funded at or preferably above its current level. The weatherization assistance program faces a shortfall in funding starting in April 1990 because the federal oil recharge funds that have been used to fund a substantial portion are spent. The WAP has been effective in saving energy and reducing energy expenses in spite of limitations within the current program. A 1985 study showed that weatherization produced a 19.5% reduction in energy usage for households. This study was completed before some highly developed techniques to determine the source of heat loss were used. The state currently has highly trained and technical skilled weatherization staffs in each of the weatherization agencies. If the State were to cut back the size of the WAP it would lose these trained crews. The WAP has societal benefits above and beyond its direct assistance

because by reducing the cost of heating to households it may also reduce their reliance on social welfare programs.

If the state provides funding for the WAP, the current limits of the federal program and the barriers to participation of tenants should be addressed. The current federal program limits expenditures to an average of $1,600 per household with a 60-40% ratio between labor support and materials and only allows one visit per housing unit. Many households could benefit from weatherization measures which exceed the $1,600 limit. Households which were weatherized in the early 1980s would benefit from additional weatherization measures that are known to be cost-effective based on several years of experience and the improved technical capability of the operations of the WAP.

The WAP would also be more effective if the State dealt with the split incentives which prevent rental housing units from being weatherized. The landlords have no incentive to invest in the weatherization if the tenant is paying for the heat. The tenant has no incentive to pay for weatherization unless he is certain that he/she will remain in the same unit for a sufficient time to justify the investment in weatherization. In the meantime, the state loses because the house is energy inefficient and is wasting heat. We would encourage the state to consider a "time of sale" ordinance that would require houses to be brought up to a certain energy standard before they are sold.

D.4. Conservation and Demand Side Management

We heard testimony on the conservation and DSM efforts of the regulated utilities and how they are addressing the needs of the low-income households. Just as with weatherization, there is a greater societal benefit to be gained from the implementation of these programs in low-income households than in other households because these measures not only reduce the demand on the utility system but they also have the potential to decrease the costs to the welfare system.

The development of conservation and DSM programs targeted at low-income households is far from complete. At the present time the small utilities in the state have not completed their testimony in Docket 5270. The larger utilities have not completed their integrated resource plans. Both BED and GMP suggest that they have designed programs for low-income households; however, they suggest that these programs are available to all customers including low-income households. They have not designed their DSM programs to overcome the barriers, such as lack of capital, limited literacy, and the rental split incentives that may limit the implementation of these measures into low-income households. CVPS has explicitly included the low-income advocates in its design of demand-side measures. However, they have not revealed their programs at this time and therefore it is difficult to evaluate the adequacy of these programs.

Because of the barriers to participation and the societal benefits of targeting conservation to low-income households, we encourage the Board to require each electric and natural gas utility to specifically address the needs of low-income households. This should be done either in the integrated resource plans recommended by the Hearing Officer in Docket 5270 or in some similar document. During the next phase of this docket, the Hearing Officers would like to hear testimony about the coordination of this docket with Docket 5270 and evaluation of the plans developed in that docket with respect to their targeting and implementation of conservation and DSM measures in low-income households.

D.5. Targeted deposit and disconnection regulations

Effective January 2, 1990, the Public Service Board modified its deposit and disconnection rules to provide additional protections for all ratepayers of regulated utilities. During that rulemaking proceeding and in this docket, CVPS and

GMP suggested that those rules should allow for special treatment for low-income households. The Hearing Officers would welcome the development of these issues in the next phase of this proceeding.

D.6. Coordination of Programs Providing Energy and Assistance to Low Income Households

In this docket, we have seen several examples of parties working together to provide assistance to low-income households. The WARMTH and ShareHeat programs provide examples of customers and shareholders of utilities and fuel oil dealers providing direct assistance to low-income households for fuel emergencies. CVPS has involved low-income advocates in their development of DSM measures and the targeting of them to low-income households. GMP has been working with various agencies to convert the Highgate housing complex from electric heat to another source of heat with the goal of reducing the cost of energy to the low-income tenants while reducing the overall energy demand in the system. BED and VGS have been cooperating in the conversion of the Northgate apartments from electric to natural gas heat. BED has also applied for a tenant educator to increase the participation of Northgate tenants in their DSM programs.

There will be a need for continued coordination and cooperation among the various parties in this docket and the non-regulated fuel suppliers. Most of the utilities in this proceeding indicated that they did not know who their low-income customers are or the characteristics of those customers. However, each utility has records on the bill-paying habits of customers from which they could begin to develop profiles of low-income households. The number of disconnections received during a year may not be indicative of low-income status because some households use disconnection notices as a money management technique. However, the existence of significant past due amounts or disconnection at the end of the winter would indicate

that a household is low-income. Utilities also have information in their records on the consumption patterns of households which can be used to identify households with higher than average consumption. Based on this information, utilities can refer these households to the DSW for fuel assistance and SOEO for weatherization or target them for utility-sponsored conservation and DSM programs. The DSW and low-income advocates can provide information to utilities about the characteristics of low-income households and how to overcome the barriers to participation by low-income households in utility-sponsored programs. The CAP agencies can also provide the direct service of the DSM programs to low-income customers instead of the utilities because they have the trusting working relationship with low-income households that utilities lack.

All parties in this proceeding need to work together to identify to households with the highest energy usage and the lowest incomes. These households will benefit by being given a high priority for implementation of weatherization and DSM measures because they provide the highest societal benefit. Not only will these low-income households directly benefit from weatherization and conservation, society will benefit in decreased demands from these households for emergency fuel assistance.

Weatherization and DSM programs need to be coordinated to provide, where possible, the implementation of both sets of measures at the same time. The delivery of these programs at the same time will allow a more efficient delivery of these services and should decrease the costs of providing each service.

E. Recommendations

E.1. Recommendations to the Board

Many of our recommendations as Hearing Officers suggest that Board support legislative efforts that are not directly within its jurisdiction, but that nonetheless affect the

companies and the consumers within the Board's jurisdiction. Many recommendations for action within the Board's jurisdiction will be the subject of further testimony, as described below, in the next phase of this docket. The Board should support legislative initiatives in the following areas:

(1) Return of credit balances - The DSW has proposed legislation to require fuel dealers and utilities to return credit balances that are being held in the accounts of LIHEAP recipients. Because this would provide a one-time release of funds for fuel assistance, the Board should support this effort.

(2) Retargeting of LIHEAP benefits - The Board should support and encourage the adjustments to the calculation of LIHEAP benefits to ensure that these funds are targeted to households with the lowest income the highest energy usage relative to income. This would help eliminate the incentive for households to use electric space heaters or an oven to heat their home when they cannot afford a delivery of bulk fuel.

(3) The Board should support the proposed pilot project of BED to reallocate LIHEAP benefits through a buydown program and provide a discount to households for their basic energy needs. Although the details of this program need to be further developed, BED is willing to develop a program which is administratively simple for DSW.

(4) The Board should support GMP's efforts to implement an interim lifeline rate.

(5) The Board should support an all fuels tax to provide additional funding for the WAP and for the elimination of federal limitations in that program on expenditures and number of visits per households. The Board should also work to eliminate the barriers to participation of tenants in this program.

E.2 Recommendations for the State of Vermont

One of the major difficulties of this docket was the discovery that although the problems of low-income households

affect the electric and natural gas utilities, these problems are largely outside of each utilities's control. A significant majority of heating energy (85%) is supplied by non-regulated fuel suppliers and a significant minority of non-heating fuel is supplied by non-regulated fuel suppliers.

This has a significant impact on low-income households and their utilities because regulated and non-regulated energy suppliers are not treated equally. Regulated utilities have a monopoly on service, and this requires them to follow the rules, regulations and order of the Board. However, the utilities can pass the costs associated with non-payment and bad debt on to other ratepayers.

In contrast, non-regulated fuel suppliers are not required to provide service to low-income customers if they do not have the money to pay prior to delivery for their bulk fuel needs. This can create an incentive for fuel slippage toward electricity by low-income customers because the conditions of service differ between regulated and non-regulated fuel suppliers. Regulated fuel suppliers bill in arrears for service creating a perverse incentive for households to use electricity for their heating needs when it is not necessarily the best choice from a fuel efficiency standpoint.

The lack of participation by the non-regulated fuel suppliers in this docket may complicate the development of long-term programs. At the present time, the loss of the DPS/NYPA block will create additional strains on low-income households trying to pay for basic, non-heating electric usage. However, the design of any program to mitigate the impact of this loss and anticipated increases on the cost of energy must be carefully designed so as to not create an incentive for uneconomic fuel switching from non-regulated sources to regulated sources. Low-income household face barriers to conversion of their non-heating fuel sources based on a lack of access to

capital and their rental status. However, there is less of a barrier to conversion of heating usage because a electric space heating unit is easier to purchase than a stove or hot water heater.

In the long-term, Vermont needs to develop a coordinated strategy to target its assistance to households with the lowest income and the highest energy use relative to income irrespective of whether the household uses a regulated or non-regulated source of energy. Such a program would target LIHEAP benefits based on some measure of the percentage of income spent on heat even if this is accomplished only through the emergency fuel assistance program. Such a system should remove the incentive for low-income households to have a fuel emergency, including a disconnection notice from a utility or an empty fuel tank, before they can receive additional assistance. This program would provide information to the DSW to target households who have the highest energy usage and the lowest income for weatherization and utility sponsored DSM programs.

The State needs to make a continuing commitment to the WAP at a funding level at or above the current level. The WAP has been effective in saving energy and in reducing energy expenses to low-income households. Over the last several years the state was benefitted from the high level of skill and technical expertise of the auditors in the WAP. A 1985 study showed that weatherization produced a 19.5% reduction in energy usage for low-income participants. This energy savings are likely to be higher in 1990 due to improved technology for detecting air leaks and in the high level of expertise among energy auditors.

If the current level of funding is not maintained, then the State would lose the skill and training of its weatherization crews. The State needs to recognized that WAP has societal benefits above and beyond its direct benefits. By reducing the

cost of heating to low-income households, the WAP may also reduce the reliance on social welfare programs.

The WAP should be enhanced by removing the limitations of the federal program including the level of expenditures that can be made in any given household and the number of visits allowed to the same residence. The weatherization program should also be modified to remove barriers to participation by requiring the participation of landlords in bringing housing units to a specified energy efficiency standard through a time-of-sale energy efficiency standard. The participation of tenants in weatherization and DSM programs should also be considered within the context of the discussion of the affordability of housing within the state.

F. Topics to be Addressed in the Next Phase of This Docket

The accelerated schedule of this docket has not allowed sufficient time to develop many topics in sufficient detail to satisfy the Hearing Officers. In our prehearing conference memorandum, we recommended that implementation issues be deferred to the next phase of this docket. Many of the issues cited by the parties in this proceeding as implementation issues are a part of the program design and therefore affect the cost of the proposals. To address these concerns, the next phase of this docket should develop the following topics:

(1) the design and funding sources of the DPS's Basic Energy Needs Program, CVPS's lifeline rates/block, GMP's interim lifeline rates and BED's pilot proposal and a comparison of the advantages and disadvantages of these proposals;

(2) the targeting of special deposit and disconnection rules and arrearage forgiveness programs for low-income households;

(3) the use of information in present utility records to provide targeted referrals to the DSW and SOEO;

(4) the targeting of DSM measures to low-income households and the coordination of this docket with measures recommended and implemented in Docket 5270; and

(5) other efforts to improve the coordination of energy assistance to low-income households that take advantage of the skills and expertise of low-income advocates, state agencies and utilities.

G. Response to Comments on Proposal for Decision

Ten parties commented on specific findings and on the proposal generally. Many of these comments have been incorporated into specific findings. The following findings have been revised based on comments received: 11, 14, 16, 21, 28, 34, 74, 78, 97, 104, 119, 126, 136-140, 144, 149, 155, 182, 216, 223, 227, 233, 237, 241 (new), 242 (new), 285 (old 283).

CVPS provided a significant number of comments and proposed findings. Some of their suggestions have been incorporated into their findings; other arguments and findings have been rejected. Their major arguments are: 1) the BENP, as proposed by the DPS, should be rejected because the hearing officers have rejected it as not being cost-effective ad that it should not be relitigated in the next phase and 2) the fixed-credit/lifeline block is the best program delivery mechanism consistent with the objective of sustainable public policy.

Both of these arguments have already been discussed in detail previously, and each misstates the conclusions of the hearing officers. While the Hearing Officers concluded that the BENP, as proposed, would not pay for itself out of avoided costs, we reached this conclusion based on an incomplete record and a series of assumptions, some of which could significantly affect the estimates of the cost of the BENP. The finding that the BENP does not meet the test of cost-effectiveness with the funding source recommended by the DPS is not meant to imply that the program is without merit.

CVPS has proposed a fixed credit/lifeline block without providing details on the size of the block and the cost of the program. They have clearly identified their preferred source of funding, an energy tax. However, it is clear that legislative authorization will be necessary for either an energy tax or a rate cross subsidy. While CVPS argues that, in theory, this program would be the best delivery mechanism, they have not fully developed the details of their proposal. Only after the details of both the BENP and the lifeline/fixed credit are developed will a comparison of these programs be possible. Such a comparison will be based upon facts not currently in the record. Finally, the effort to foreclose further evidence, argument, and consideration of this issue is squarly in conflict with all parties requests that some portions of this proceeding be expedited, without foreclosing more detailed review of issues at a later time. (See, Prehearing Conference Memorandum, September 14, 1989.) For these reasons, CVPS's assertion that the Board is precluded by the doctrine of res judicata from relitigating the BENP is without merit.

Proposal for Decision has been served on all parties to this proceeding in accordance with 3 V.S.A. §811.

DATED at Montpelier, Vermont, this 26th day of March, 1990.

s/Ruth L. Steiner
Ruth L. Steiner, Hearing Officer

s/Ennis John Gidney
Ennis J. Gidney, Hearing Officer

STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 5308

Board investigation into the adoption and implementation of energy programs for low-income households)

Order Entered: 3/9/93

REPORT AND CLOSING ORDER

I. INTRODUCTION

For many low-income Vermonters, the cost of energy for essential residential uses can be a significant burden on limited financial resources. The cost of basic utility services is one important component of this problem.

This docket was initiated at the request of Green Mountain Power Corporation (GMP), City of Burlington Electric Department (BED), Vermont Public Power Supply Authority, Inc. (VPPSA), Central Vermont Public Service Corporation (CVPS), and the Department of Public Service (DPS).[8] The Docket also was prompted in part by a Report on the Authorization of Wholesale and Retail Energy Purchases and Sales by the DPS, issued in December, 1987, by the Joint Committee on Public Power, Public Advocacy, and Basic Residential Rates of the Vermont Legislature. The report recommended that "[t]he Public Service Board, with the assistance of the PSD, the Department of Social Welfare, and the Tax Department, should develop a long-term program to address comprehensive energy needs of low-income persons, including those who live in rental property."

8. The parties to this docket include these groups as well as the following: all other electric companies operating in Vermont; Vermont Gas Systems, Inc.; Department of Social Welfare (DSW); Vermont Legal Aid, Inc.; Vermont Public Interest Research Group (VPIRG); Vermont Energy Investment Corporation; Champlain Valley Office of Economic Opportunity; Vermont Low Income Advocacy Council; Coalition of Vermont Elders; and Energy Efficiency Associates.

In the fall of 1989, a public hearing and twelve days of technical hearings were held.[9] We commend the Hearing Officers and the parties for their thorough development of the facts and issues in this docket. On March 26, 1990, the Hearing Officers issued a Proposal for Decision. Since that date, the Board has taken a number of steps to implement recommendations made in this Docket, addressing the energy needs of low-income households. Those steps have included rulemaking, legislative initiatives and a number of independent dockets in the areas of weatherization, financial assistance and energy efficiency services for low-income households. The evidence developed in this Docket has been of substantial assistance in that work.

In today's Order we confirm the importance of the steps already taken, and recommend additional actions to meet the basic energy needs of Vermont households. The program we now recommend builds upon the following major steps that have already been taken:

(1) creation of a broad-based funding mechanism and program enhancement for the statewide low-income weatherization program;

(2) initiation of a comprehensive energy efficiency program for low-income households, targeted to their specific needs; this program includes accelerated delivery of efficiency investments and electric heating conversions for housing occupied by low-income tenants;

(3) revisions to the Board's Rules regarding utility deposits and disconnects to better reflect the needs of low income households; and

(4) continued support for the Low-Income Home Energy Assistance Program, the Emergency Fuel Assistance Program, and the statewide WARMTH program.

In addition to those elements, we recommend the following additional steps:

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9. On January 20, 1992, the Champlain Valley Office of Economic Opportunity requested that hearings be reopened. The request was opposed by Central Vermont Public Service Corporation. The request is hereby denied.

(5) pilot programs for bill assistance, lifeline rates and other utility initiatives, where consistent with utility ratemaking principles, and, where necessary, enabled by specific legislative action; and

(6) creation of a low-cost, flat rate Residential Service Block of electric power for the initial block of electric use by all residential customers.

These program elements are described in the Proposal for Decision and are supplemented and modified in the Board discussion below.

The actions already taken and the additional steps we recommend are intended to promote energy assistance for low-income families through programs that are effective and equitable and that meet explicit public policy and utility regulatory principles. We believe that proposed policies and programs should be evaluated using the following general criteria:

(1) utility rate design should be based on the cost-based price signals in order to promote the efficient use of natural resources;

(2) financial support to meet the energy needs of low-income Vermonters should be provided through broad-based collection mechanisms, such as income and consumption taxes; here, as in other areas,[10] cross-subsidies among classes of ratepayers through utility rates should be avoided;

(3) programs which provide energy needs assistance to low-income households should not be limited to regulated fuels alone, but should be available to support the needs of those households with respect to non-regulated fuels as well. Assistance to low-income households should also be broad-spectrum, addressing the weatherization, lighting, heating systems, hot water, appliance efficiency and financial management needs of those households;

(4) programs should be sensitive to efficient use objectives by avoiding disincentives to conserve.

II. DISCUSSION

A. Scope of the Docket

10. In recent years there have been many proposals to assist various classes of customers through cross-subsidies, including existing businesses, new businesses, farms, schools, public facilities and residential customers generally. Under Vermont's well-established policy favoring cost-based utility rates, the Board has opposed these measures when they impose additional costs on other customer classes. Low-income Vermonters benefit greatly from this general principle, and would not necessarily benefit from its abandonment.

The scope of this docket has been broad. It has included examination of:

- the extent of the need for energy assistance among low-income Vermonters;
- programs to deal with those needs;
- the limits of the Board's authority to order and implement specific energy assistance programs; and potential remedial legislation that would address the total energy needs and costs faced by low-income Vermonters.

The Hearing Officers, in their Proposal for Decision, made numerous recommendations for action by the Board and others, but also noted that several areas of possible action were beyond the Board's jurisdiction.[11] The Hearing Officers also recommended several coordination and advocacy activities on the part of the Board or other parties. Finally, the Hearing Officers recommended several activities that were directly within the Board's jurisdiction.

B. Actions Taken Since this Docket was Opened

The evidence introduced in this docket, and the policy concerns advanced by the parties, have assisted the Board in proposing, developing and implementing a variety of initiatives to assist low-income households in connection with their energy costs. This docket has been demonstrably fruitful in generating ideas and in creating momentum for the creation of a variety of measures related to the energy needs of low-income households.

Since the hearings in this case, the Board has taken the following actions:

1. Utility deposits and disconnections. In January, 1990, the Board revised its Rules 3.200 and 3.300 regarding deposits and disconnections. Those revisions included a number of amendments to minimize the burden of utility services on low-

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11. Examples are the fuel assistance program and the practices of non-regulated fuel suppliers such as oil and propane dealers.

income households and to protect elderly and low-income households from avoidable disconnections.

2. Low-income weatherization program. Evidence introduced in this docket demonstrated that the Weatherization Assistance Program administered by the Vermont State Office of Economic Opportunity was a cost-effective means of reducing energy bills for low-income households, while increasing household comfort and safety. In response to dramatic cuts in program funding by the federal government, the Board worked with legislative leaders, program administrators, low-income advocates and utilities to create a stable, Vermont-based funding source for this program. We recommended a small gross receipts tax on both regulated and non-regulated fuels, coupled with a tax credit option for utility efficiency programs that met the same program goals. The General Assembly adopted those recommendations in Act No. 272, *An Act Relating to a Home Weatherization Assistance Program* (1990), and extended the program in Act No. 262, *An Act Relating to the Fuel Gross Receipts Tax and the Home Weatherization Trust Fund* (1992).

Since this legislation was passed, the Board has heard and decided several dockets to implement its provisions. In July, 1990, the Board opened a generic investigation and approved an increase in electric and gas utility rates to reflect the added cost of the new weatherization gross receipts tax. Docket No. 5434, *Generic Investigation into the Implementation By the Utilities of Act H.832 - Weatherization Tax*, Order of 7/30/90. The Board has also administered the utility credit mechanism set up in the legislation in a series of implementation dockets. See, e.g., Docket No. 5547, Order of 3/31/92; Docket No. 5605, Order of 11/24/92; and Docket No. 5606, Order of 1/15/93.

3. Support for utility initiatives and pilot programs. Since the hearings in this docket, individual electric utilities have designed experimental programs to address the basic needs of low-income households. We have approved those programs and

supported utility efforts to gain program experience in these areas. For example, on April 1, 1992, GMP initiated its own two-month pilot program, an arrearage forgiveness program, supported in part by a desire to lower overall utility costs for disconnection/reconnection procedures and bad debt losses.

As a general matter, the Board supports utility-specific pilot programs to deliver energy assistance to low-income households, to lower overall utility costs, and to gain knowledge and experience for addressing these important and complex issues. With respect to many proposals, such as Percentage-of-Income Payment (PIP) programs, we have insufficient evidence and experience in Vermont to justify adoption of statewide programs at this time. This does not mean that utilities and others should cease exploring these topics. Pilot programs may well be an appropriate means of conducting such explorations; these could include carefully designed PIPs as well as other types of programs. Where carefully designed and, where necessary, authorized by the Legislature, the Board will continue to be receptive to such investigations and initiatives.

4. Energy efficiency services for low-income households. Finally, in a major initiative, the Board has required utilities to file comprehensive Demand Side Management (DSM) Plans that include a portfolio of cost-effective measures to assist low-income households in reducing their energy bills. Docket No. 5270, *Investigation into Least-Cost Investments, Energy Efficiency, Conservation and Management of Demand for Energy*, Order of 4/16/90. The utility plans must specifically address unique barriers to participation in energy efficiency programs faced by low-income customers. Following a series of implementation dockets, the Board has thus far approved comprehensive DSM programs for seven utilities, which provide service to nearly 90% of the state's residential customers.

While the details vary from utility to utility, approved programs have included:

- a comprehensive array of energy saving measures, including weatherization, lighting, hot water, appliance replacements and heating system replacements;
- deferring payments on energy conservation measures (to provide customers with a continuous positive cash-flow)
- having the utility pay the full cost of such measures; and
- having the utility provide low-interest financing for energy measures.

In additional implementation Orders, the Board has approved cost recovery mechanisms for the utilities offering energy efficiency programs to low-income households.[12] The State's other distribution utilities are under a continuing obligation to develop and implement such programs, and are on a schedule to do so. There are a number of private and governmental actions that could complement utility DSM programs for low-income households. We will continue to support those programs and initiatives.[13]

C. Further Action: the Residential Service Block

The evidence in this docket, and in the numerous implementation dockets discussed above, convinces us that weatherization, energy efficiency and fuel-switching programs are the best means of providing significant benefits to low-income Vermonters with respect to energy bill savings, comfort, and safety. These programs have done much to provide broad-based assistance, while adhering to the basic principles outlined above. However, even with these programs in place, further assistance will be needed to provide low-income households with essential energy services. The large majority of low income

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12. See, e.g., Docket No. 5270-LDLW-1, Order of 12/3/92 at 20-21; Docket No. 5270-WEC-2, Order of 1/30/92 at 17; Docket No. 5270-GMP-3, Order of 9/5/91 at 18.

13. Among those programs and proposals are building efficiency standards, public hearing improvement programs, energy efficient mortgages, and time-of-sale upgrade requirements.

households heat with oil, wood, and other non-regulated fuels. Thus, the need for assistance is not limited to those who rely on regulated utilities for their primary source of heat. For this reason, we strongly support broad-based heating assistance programs that provide assistance to households in need regardless of the type of heat that is used.[14]

In addition, we conclude that residential ratepayers generally, and low-income ratepayers in particular, would benefit from a moderately-sized, low-cost Residential Service Block, providing an initial block of electricity to residential customers within each utility service territory. The block size should be set high enough to serve the non-discretionary, year-round needs of residential customers, but low enough not to discourage cost-effective energy efficiency investments. This block could consist of power supplied by the Department of Public Service and/or each electric distribution utility. The block should be priced to reflect the actual costs of the DPS's sources and/or each utility's baseload power sources. To the extent that those resources do not vary seasonally, this initial block should be priced at a flat year-round rate. The reasons for this conclusion are set out below.

1. Introduction

We have considered carefully the question of whether the state should adopt either a PIP or a Lifeline Credit program, or some other means of improving the affordability of electricity for residential customers. A PIP program offers benefits only after a customer has spent a defined amount, determined by the customer's income, on energy. Thereafter, the PIP program pays

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14. The funding and administration of these programs is entirely outside of the Board's jurisdiction. Our support for them has been registered in legislative testimony, and (with respect to LIHEAP) communications with Congress through the National Association of Regulatory Utility Commissioners. See e.g., *Resolution regarding FY-1993 appropriations in the Low-Income Home Energy Assistance Program and the DOE Weatherization Assistance Program*, NARUC Bulletin 10/92, pp. 3-5.

for part or all of the beneficiary's additional energy costs. A lifeline plan, in contrast, makes a block of energy, of predetermined size, available to the beneficiary at reduced cost. Thus, a PIP program helps pay for a customer's last units of energy consumed, while a lifeline program helps pay for the first units consumed.

Several of the parties in this docket have expressed considerable interest in PIP programs as a means of meeting the energy needs of low-income households. Although this idea was given detailed attention by the Hearing Officers, we do not find sufficient evidence in the record to support creation of a statewide PIP program at this time. The vast majority of low-income households do not rely on regulated fuels for their primary heating source; thus, a meaningful PIP program in Vermont would require major regulatory changes and potentially significant administrative costs, and could promote inefficient fuel choices and consumption patterns. The changes necessary to support a PIP program were opposed by the Department of Social Welfare, which would have to implement them, and by the Vermont Low-Income Advocacy Council. See Proposal for Decision at 77-78. Upon careful review, we conclude that the public interest would be better served by a program that combines energy efficiency investments, fuel assistance, and a low-cost initial electric service block.

2. PIP Programs

The principal attraction of PIP programs is their focus on each participant's ability to pay. Low-income households are required to contribute a specified portion of their available income for household energy services, but that contribution is limited in accordance with the ability to pay. On the other hand, as the Department of Social Welfare and other parties have pointed out, there are significant obstacles to the implementation of PIP programs in Vermont.

An initial concern is that PIP programs may work at cross purposes with energy conservation programs. In its usual form, once a PIP customer has used a certain quantity of energy (defined by the customer's income), further energy usage would be "free" in the sense that it would not further increase the customer's energy bill. This might create an incentive to allow inappropriate energy consumption to expand.

In addition to encouraging wasteful energy use, a PIP can complicate the task of encouraging demand-reducing measures that are cost-effective for society as a whole. Many Vermont utilities are now offering, or are planning to offer, financial assistance to low-income customers who install demand-reducing measures.[15] Typically, such DSM assistance payments are structured to ensure that the customer's cash flow will be better with the demand-reducing measure than without it. But if a PIP program were paying all the marginal cost of a customer's energy consumption, utilities might find it difficult or impossible to structure such incentives.

A third problem flows from the fact that most of the energy used by low-income households is provided by non-regulated fuel dealers outside of the jurisdiction of the Board. In theory, both PIP and lifeline programs conceivably could be applied either solely to electricity usage or more broadly to all heating fuels used in the home. Thus, two kinds of PIP programs and two kinds of lifeline programs are possible.

While they may be the most effective at relieving economic burdens, special problems arise for plans aimed at managing a consumer's total energy budget. The Public Service Board has jurisdiction over electric and natural gas companies, but not over the prices of heating oil, coal, propane gas, or

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15. A few Vermont utilities are offering to fully fund some or all measures for low-income customers. See Docket No. 5270-GMP-3, Order of 9/5/91 at 16; Docket No. 5270-WEC-2, Order of 1/30/92 at 15; Docket No. 5270-VGS-2, Order of 10/23/92 at 25.

wood. Since these are the predominant heating fuels, about 85 percent of the heating fuel sold in Vermont is sold by unregulated fuel suppliers over whom the Board has no jurisdiction. This fact distinguishes Vermont from the other jurisdictions where PIP programs have been implemented as a matter of public utility regulatory policy. Typically in those cases, a much higher percentage of the affected population is dependent upon regulated utilities for their primary energy needs.

A good PIP program would be sensitive to customer income, but would not promote wasteful use of energy. To achieve this, state or utility officials will need access to information about a residential customer's financial capability as well as that household's reasonable energy usage. Income data is customarily available to some state officials, but is not now available to utility account representatives. It may not be possible to administer the program in such a way that such income information does not reach utilities.

Preventing wasteful use of energy also might create administrative problems. In order to limit needless energy consumption, program administrators would need to make detailed evaluations of each customer's energy needs, in essence establishing a reasonable "energy budget" for participating customers. Since the size of an energy budget would affect the amount of financial assistance a customer receives, due process considerations might well require expenditure of considerable time and money to establish fair and reasonably accurate energy budgets on a household-by-household basis. This is not an insurmountable problem, but it is not at all clear how utilities could perform this function with respect to the unregulated heating fuel requirements of most low-income households.

It is difficult to imagine how the Board could effectively administer an all-energy PIP without greatly

expanding its present jurisdiction. Indeed, for this reason the Hearing Officers discussed an all-energy PIP primarily as a program managed by the Department of Social Welfare. However, the Department of Social Welfare has consistently opposed the introduction of PIP programs, arguing that its current LIHEAP and Fuel Assistance programs are reasonably income-sensitive already, and that the administrative costs of a new PIP program would overburden an agency already stretched too thin. This Board has neither the information nor the authority to resolve questions relating to the authority and administrative capabilities of the DSW. These are issues that can be addressed only through close consideration by the Executive and Legislative branches. It may well be the case that the desirability of any PIP program in Vermont could only be evaluated after a pilot program is initiated, and the results of such a program are analyzed.

3. Electric Lifelines and the Residential Service Block

For over 30 years, low-cost electricity has been available to Vermont residential and farm customers from either or both the Niagara and St. Lawrence hydroelectric projects. Since 1975, this low-cost power has been delivered to eligible customers in an initial non-seasonally differentiated rate block. Between 1985 and 1990, the Niagara component of this power was available through the Vermont DPS, pursuant to the authority of S. 130, enacted in 1985. The power supplied by the two hydroelectric projects has provided the equivalent of an introductory "lifeline" cost-based electric block to all residential ratepayers, including low-income ratepayers.

In recent years, however, as a result of decisions by the Federal Energy Regulatory Commission (FERC), Vermont's entitlement to these low-cost power sources has declined dramatically, The St. Lawrence power is to be phased down to 1 MW in mid-1995, from a high of 100 MW in mid-1985. Vermont's entitlement to Niagara power has also been severely restricted.

Since 1990, it has been available to customers of municipal and cooperative utilities only. FERC Op. No. 329, EL86-24-000, 7/28/89 (effective 8/1/90). As a result of these changes, the introductory, flat-rate block available to most households has dropped from 300 kwh in 1985 to 25 kwh today. We have considered two different approaches to this problem: an electric "lifeline" program available only to low-income households, and an initial, low-cost residential service block, available to all residential customers. For the reasons discussed below, we recommend creation of a Residential Service Block for all residential customers.

A low-income electric lifeline program has some attractive features. First, it could be administered at relatively low cost. It could operate in parallel with the existing telephone lifeline program, and would add relatively little to the overhead for that program, which itself has a relatively low overhead.[16] Such a program could functionally restore the benefit that low-income Vermont households have traditionally received from low-cost hydroelectric power from New York. A low-income electric lifeline program would also target benefits to those who need them most, and thus could help ensure that as many households as possible remain connected to the electric grid.

However, such a program also has significant limitations. A reasonable electric lifeline block would not be large enough to address the critical home heating needs of low-income households.[17] It would involve explicit cross-subsidies

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16. Under the authority of special legislation (Act No. 123 of 1990), such a program was operated by CVPS during the winter of 1989-90; this Emergency Preferential Electric Rate program was approved by the Board in Docket No. 5294 (Order of 2/26/90).

17. An electric lifeline block or credit large enough to cover electric heat costs would undermine efficiency incentives

(continued...)

from most households to a few households, based on a collection mechanism (electric rates) that is not income sensitive. And, unlike the telephone lifeline program, an electric lifeline surcharge is not justified by direct system benefits to the general body of ratepayers.[18]

For these reasons, and as a matter of rate design equity, we support creation of an expanded initial residential service block. The purpose of an initial residential block would be to supply the essential, year-round electric needs of residential households with a low-priced mix of sources that are essentially baseload in nature. Because the size of the block would reflect essential, non-discriminatory usage, it would not undercut the objectives of Vermont's cost-based pricing policies. In addition, because it would be available to all residential users, no unfair discrimination would result from this program.[19] Such a block could include both power sold by the DPS under its retail sales authority, and power sold by a distribution utility, as a matter of company rate design policy. We believe that an initial low-cost block should be available to all residential customers. This is consistent with Vermont's long-standing policies for the use of NYPA power, and would restore a rate design element that has been significantly eroded since 1985.

(...continued)
for most participants, and would create an unwise incentive to switch to electric heat. Since most low-income households heat with unregulated fuels, an electric-only lifeline could not address their heating needs in any event.

18. Telephone ratepayers who pay for the Lifeline program also benefit directly from it: they are able to call, and receive calls from, low-income telephone customers who might otherwise be without a phone. Electric users in general would not receive a similar direct benefit of this type from a low-income electric subsidy. In addition, the telephone industry is characterized by decreasing long-run marginal costs, while the electric industry is characterized by increasing marginal costs. Thus, increasing telephone usage decreases average telephone costs while increasing electric usage increases average electric costs.

19. The costs of the residential service block should be assigned to the residential sector and should not require a cost subsidy from commercial or industrial ratepayers. As a rate design matter, the consequence of a lower-priced initial block would usually be slightly higher residential tail block rates.

III. CONCLUSION

This Docket has led to the creation of a variety of policies and programs to assist low-income households in Vermont to meet their energy needs. Some of those programs have been temporary. Others, including the weatherization trust fund and the low-income component of demand-side management programs, offer benefits of lasting value to low-income Vermonters.

The concerns that underlay our decision to begin this investigation have been partially mitigated by these initiatives, but they are, of course, still with us. However, the problems of household energy costs extend significantly beyond the regulated utilities. For this reason, and as a matter of broad social equity, we conclude that the remaining energy needs of low-income households can best be addressed through broad income support mechanisms funded by broad-based taxes, rather than through utility rates. This Board will continue to support such broad-based programs, as we will support weatherization, energy efficiency, and across-the-board cost containment initiatives aimed at lowering the cost of energy services for Vermont ratepayers.

Beyond these existing initiatives, we recommend a more general shift towards a significant non-seasonally differential initial block representing baseload/non-discretionary usage for all residential customers.

In addition, we will review specific future proposals by utilities and others to establish pilot low-income programs in light of the concerns expressed in this Order, and the need for enabling legislation. Consistent with its other responsibilities, the Board has a continuing interest in taking steps to improve the affordability of regulated utility services. However, we do not believe that these issues should be addressed as a continuation of this general investigatory docket, which will now be closed.

Each of these recommendations should be addressed in an appropriate proceeding devoted to considering a particular proposal. Of such steps, the most important is creation of a basic residential service block. We have recently approved, on an interim basis, initial versions of such programs for Vermont's two largest utilities. We invite those and other utilities to build upon those filings and develop appropriate initial-block offerings for all residences in Vermont.

IV. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The findings, conclusions and recommendations of the Hearing Officers are accepted, except to the extent modified herein.

2. This docket is closed. Further action on the recommendations contained herein will be taken through individual proceedings devoted to the review of particular proposals.

Docket No. 5308

DATED at Montpelier, Vermont, this 9th day of March, 1993.

s/Richard H. Cowart)
) PUBLIC SERVICE
)
s/Suzanne D. Rude) BOARD
)
) OF VERMONT
s/Leonard U. Wilson)

OFFICE OF THE CLERK

FILED: March 9, 1993

ATTEST: s/Susan M. Hudson
Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board of any technical errors, in order that any necessary corrections may be made.

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this order, absent further order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.